

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

1946

OCTOBER 15, 1946

Expor. Stat.



Expor. Stat.

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Gaultheria Procumbens

SEEDS

TREE—SHRUB—PERENNIAL
FLOWER—VEGETABLE

HERBST BROTHERS

92 Warren St., New York 7, N. Y.

Correspondence with seed collectors and growers invited.

Free catalog "Seeds for Nurserymen."

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Delivery — Now or later, as desired. Terms — Regular.

For other Fruit Trees, see our Fall Wholesale Trade List mailed September 16, 1946.

APPLE and CRAB

	Per 10	Per 100	Per 1000
First Class, 11/16 to 7/8-in., 4 1/2 feet and up.....	\$6.50	\$60.00	\$550.00
First Class, 9/16 to 11/16-in., 4 feet and up.....	5.50	50.00	450.00
First Class, 7/16 to 9/16-in., 3 feet and up.....	4.00	35.00	320.00
First Class, 5/16 to 7/16-in., 2 feet and up.....	2.90	25.00	220.00
First Class, 7/8-in. and up, 5 feet and up.....	7.50	70.00	

Anoka
Banana
Beacon
Ben Davis
Black Ben Davis
Delicious
Delicious, Dark Red
Delicious, Yellow
Duchess
Duchess, Red
Florence Crab
Grimes Golden
Joan
Jonathan
Jonathan, Dark Red
Maiden Blush

Malinda
Northern Spy
Northern Spy, Red
N. W. Greening
Red Siberian Crab
Rhoda
Stayman, Red
Stayman Winesap
Turley
Virginia Crab
Wealthy
Whitney Crab
Winesap
Winesap, Crimson
Yellow Transparent
York Imperial

APPLE and CRAB

	Per 10	Per 100
First Class, 11/16 to 7/8-in., 4 1/2 feet and up.....	\$6.50	\$60.00
First Class, 9/16 to 11/16-in., 4 feet and up.....	5.50	50.00
First Class, 7/16 to 9/16-in., 3 feet and up.....	4.00	35.00
First Class, 5/16 to 7/16-in., 2 feet and up.....	2.90	25.00
First Class, 7/8-in. and up, 5 feet and up.....	7.50	70.00

Baldwin
C. E. White
Cortland
Dolgo Crab
Early Harvest
Early Strawberry
Fameuse
Fireside (Minn. No. 993)
Gravenstein Red
Haralson
Hibernal
Hyslop Crab
Lodi
Kendall
Macoun
McIntosh
McIntosh, Black Mickey
McIntosh, Early
Melba

Milton
Minjon (Minn. No. 700)
Minn. No. 638
Minn. No. 714
Minn. No. 790
Minn. No. 240
Patten Greening
Prairie Spy (Minn. No. 1007)
Red Astrachan
Red June
R. I. Greening
Rome Beauty, Red
Salome
Secor
Sharon
Tolman Sweet
Victory (Minn. No. 396)
Willow Twig, Red
York Imperial, Red

PEAR — Standard

All Pears are in limited supply and can only be sold in assorted orders including other stock.

	Per 10	Per 100	Per 1000
1 and 2 Years, 11/16 and up, 4 1/2 feet and up.....	\$11.00	\$100.00	
1 and 2 Years, 9/16 to 11/16, 4 feet and up.....	9.00	85.00	\$800.00
1 and 2 Years, 7/16 to 9/16, 3 feet and up.....	8.00	75.00	700.00
1 and 2 Years, 5/16 to 7/16, 2 feet and up.....	6.00	55.00	500.00

Bantam
Bartlett
Beurre d'Anjou
Beurre Bosc
Clapp Favorite
Cope's Seedless
Douglas
Duchess
Flemish Beauty
Garber

Kieffer
Laxton's Progress
Laxton's Superb
Lincoln
Mendel
Parker
Patten
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Sheldon

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We specialize in growing and distributing Fruit Tree Stocks, maintaining our own plant in the State of Washington.

WESTERN GROWN—Our experience has demonstrated that, because of favorable climatic conditions, western seedlings are superior for planting. We are using all western-grown Apple Seedlings for our grafting and for budding stocks.

PRICES — Are for shipment from Shenandoah about January 15.

APPLE SEEDLINGS—Washington-Grown

Our Washington-grown Apple Seedlings have made a splendid growth and will be of excellent quality. They will be dug when well ripened, will be carefully graded and will please.

	Per 100	Per 1000
1/4-inch and up, branched, heavy.....	\$3.50	\$30.00
1/4-inch and up, straight, heavy.....	3.20	28.00
No. 1, 3/16 to 1/4-inch, branched, strong.....	2.90	25.00
No. 1, 3/16-inch and up, straight, strong.....	2.90	25.00
Special or Stub Grade, 3/16-inch and up, strong.....	2.10	18.00
No. 2, 2/16 to 3/16-inch, branched, strong.....	2.10	18.00
No. 2, 2/16 to 3/16-inch, straight, strong.....	2.10	18.00
No. 3, about 2/16-inch.....	1.40	12.00

PEAR SEEDLINGS— Washington-Grown Bartlett

1/4-inch and up, branched, heavy.....	3.70	32.00
No. 1, 3/16 to 1/4-inch, branched.....	3.20	28.00
No. 2, 2/16 to 3/16-inch, branched.....	2.40	20.00
No. 3, about 2/16-inch.....	1.70	14.00



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SHENANDOAH, IOWA

E.S. Welch PRES.

AMERICAN NURSERYMAN

[Registered U. S. Patent Office]

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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OCTOBER 15, 1946

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CLOSING DATE—Present printing conditions require that more time be given for putting current issues of the American Nurseryman through the press. So if you send material for either the advertising or the news columns of the **November 1** issues, please mail in time to reach this office by **October 22**.



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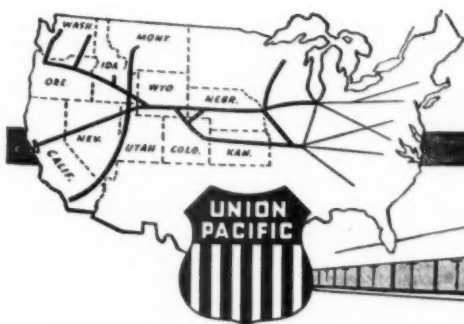
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AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

ADAPTING THE PLANS.

Those who have seen the displays of plans resulting from the contest for nursery salesyard and display grounds designs, displayed at meetings of the National Landscape Nurserymen's Association and other trade organizations during the current year, realize that many fine layouts were presented, as well as a multiplicity of excellent sales ideas.

Because it was impractical to reproduce the complete plans in these pages, outstanding ideas on various phases of them have been presented in a series of articles by the secretary of the National Landscape Nurserymen's Association. The concluding article, in this issue, goes farther and indicates how it is possible to adapt to one's own premises the ideas which may appear in a different form in one or another of the contest designs. References in the current article are to illustrations that have appeared with previous articles in the series, so that a guide is furnished to this species of adaptation.

This is particularly valuable for readers, because the average nurseryman would not feel that he could undertake to reproduce one or another of the plans completely, in order to serve the needs of his business and the requirements of his local trade. Some thinking is needed to make use of the ideas of other designers, but that is an important qualification of business management.

Because of the interest in the series of articles concluded in this issue, and the demand apparent for their use for reference when construction will be more readily done later, plans are going forward for reprinting the entire series in booklet form, announcement of which will appear later in these pages.

RISE IN BUILDING COSTS.

Fancy figures being paid for places to live by persons desperately seeking homes call attention to the possibility that the incipient building boom may be retarded or halted by selling costs, as happened in 1920-21.

The rising prices for homes spring not only from the higher costs of building materials and increased wages for building labor, but sometimes even more from costly delays on construction jobs.

Probably each nurseryman will have to answer the question of the effect on home building in the light of conditions in his own locality, balancing the extent of the rise in prices on the one hand with the urgency of the demand on the other.

There is no question that the current housing shortage is by far the most severe in the nation's history. The extraordinary number of marriages in recent years and the return of millions of veterans to civilian life have accentuated the shortage. Many of the temporary dwellings being used or erected at the present time will not last long, so that the demand for dwellings should continue over a considerable period.

In the face of this urgent demand, those in need of dwelling accommodations are ready to pay a larger proportion of their incomes or cash resources than they would to secure homes in normal times. The fact that the general price structure has risen greatly offsets part of the inflation in real estate.

Further important increase in prices for new homes might cause a temporary halt in construction as buyers withdraw from the market. But the prospects for a better flow of building materials and an increased supply of labor would seem likely to relieve in part the possibility of further rise in costs.

RECORD BUYING POWER.

Figures on the national income indicate that income payments reached an all-time record in July, higher than the wartime peak. It should be obvious that so long as the flow of purchasing power into the hands of the public continues larger than ever before, retail trade and business activity should continue at high levels, despite stock market setbacks and the like.

The record in income payments in July was chiefly due to the larger agricultural income on account of the lifting of OPA price controls and record livestock marketings in that month. Some reduction in farm income has probably followed, but other forces are at work to raise aggregate income payments.

Principal of these forces is the persistent climb in wage rates. Straight-time hourly wages in manufacturing industries have increased while overtime payments have been shrinking, so that the former has offset the lat-

ter. Larger employment has taken place in the distribution and service industries, with consequent greater wage payments.

Inasmuch as figures indicate that both taxes and savings have been sharply reduced over the past year, a larger proportion of current income is available and is being spent by the public for goods and services.

Total income payments of the people in this country will probably run above the rate of \$160,000,000,000 annually during the second half of this year. Statisticians tell us that taxes and savings together will absorb less than a quarter of this total, so that consumer expenditures for goods and services should be at a rate in excess of \$120,000,000,000 per year. In 1945, by far the best year business ever had in this country, consumer expenditures totaled \$109,000,000,000 dollars. Hence it is presumed that consumption spending during the latter half of this year will be ten per cent or more above the 1945 level.

RULES OPEN TO ALL.

As ordered by Congress, more than 150 departmental agencies of government at Washington bared their inner workings to public view in the Federal Register beginning September 11. Thus bureaucratic rules and regulations became an open book, so that an intelligent private citizen might be able to deal directly with any agency, instead of requiring the services of some expert contact man who had spent years learning the rules and regulations which now are open to all.

By the same congressional order, any government agency summoning a business or an individual for a hearing must reveal in advance and in detail exactly what it has in mind. Also, the semijudicial agencies must publish written reasons for all their decisions. Other reforms required by Congress under the McCarran-Summers bill must be made within the next nine months.

DOMESTIC crop conditions at the beginning of July were the best in seven years, with the exception of 1942. A record corn crop and near-record crops of wheat, oats, potatoes and rice were indicated. The cotton crop, it is believed, may prove to be one of the smallest in twenty-five years.

California Convention at Berkeley

About 275 members of the California Association of Nurserymen, wives and guests met September 24 and 25 at the Hotel Claremont, Berkeley, for the association's thirty-sixth annual convention. A directors' meeting had been held there the preceding day. Charles Armstrong, of the Capital Nurseries, Sacramento, was elected president, and Tom Sand, of Del Rancho Fortuna, Delano, vice-president. Stewart Henson, of Henson's Nursery, Buena Park, was reelected treasurer.

Convention Chairman Jack McDonnell, of McDonnell Nursery, Oakland, called the meeting to order Tuesday morning, September 24, in the Bamboo room, and James Crombie, Crombie Nursery, Oakland, a past president of the association, welcomed the group on behalf of the mayor's office of Oakland and presented an ample-sized key to the city to Paul Moulder, of Moulder Bros., Glendale, president of the California Association of Nurserymen. In his brief address President Moulder commented on the great increase during the past year in membership, which has brought the total to 467.

Helping the Home Gardener.

The first speaker was Albert Wilson, garden editor for the National Broadcasting Co., at San Francisco, whose regular program is heard Sunday mornings over station KPC. Mr. Wilson stated that at least 625,000 new homes, all nonfarm units, are to be built in the state. New homes will mean new gardens. If nurserymen want a gigantic nursery business to accompany this home-building boom, Mr. Wilson said they now should encourage amateurs so that they will know how to garden successfully. With this thought in mind, Mr. Wilson chose as his subject "The Nurseryman and the Simple Garden."

To develop successful amateur gardeners, Mr. Wilson advised promoting gardens that would be within their owners' capacity and not selling them things they would be unable to handle. Since it is difficult for the amateur to remember many steps in plant care at the beginning of his gardening experience, it might be advisable to start him off with plants which have similar requirements in such factors as planting, watering, fertilizing and sun. After he became familiar with these, he could be introduced to more difficult plants until he finally might be able to specialize

in some particular plant or plants. By serving the long-term interests of the consumer, said Mr. Wilson, the nurseryman also is serving his own long-term interests, because during this educational process the nurseryman is building up dividends of good will on the part of the public that will come back to him in sales. The successful gardener is a lasting customer.

Trends in Association Advertising.

Walter B. Balch, of the Shell Chemical Corp., San Francisco, introduced the other guest speaker of the morning, Russell Pierce, manager of the San Francisco office of the



Charles G. Armstrong.

J. Walter Thompson Co. Mr. Pierce spoke on "Present Trends in Advertising" and told about association advertising and its benefits to groups such as the nurserymen's association.

Any advertiser must have a good, sound product, effective means of distribution, a good sales force and a well prepared groundwork for his advertising program before his advertisements can be presented to the market he wishes to reach. But an association has even more responsibilities than a private concern. The association, in collectively representing many private businesses, must be sure the product it has to offer is standard and uniform throughout its membership. It must, therefore, achieve an equal quality advertising program on the upgrading of the product it has to offer. An advertised product must live up to the claims made for it in its advertising, for the public will discard any product or service that does not come up to its expectations.

If the advertiser can meet these requirements, he is ready to set the

wheels in motion for his campaign. The selection of the staff to work out the advertising program was, in Mr. Pierce's opinion, of the utmost importance. The staff must be genuinely interested in the program. To carry out successfully such advertising, more than a paid staff is necessary. All the association members must support the program and actively participate in it. They must be contacted regularly and be kept aware continually of the advertising program. However, since it would not be feasible for all the association members to meet often to work on the campaign details, an advisory board representing all geographical areas and the different kinds of businesses in the association should be appointed to represent the membership and to work closely with the paid staff. To expedite the program further, it would be advisable to appoint small committees to take care of such details as standards and finance.

The enthusiasm for an advertising or publicity campaign is usually great at the outset, and financial support is assured for the first year or two, but after a time the enthusiasm may wane; so Mr. Pierce stressed the need for adequate machinery for the collection of funds to carry through the program. If there were not a means to assure the continuity of the program, it would not be worthwhile to undertake it. In California, under the state marketing act, a cooperative program of this type is assured for three years.

Another point which Mr. Pierce brought out was that any advertising program requires constant plugging. Today, while people have a great deal of money to spend, there is keen competition for the consumer dollar and continual advertising is necessary. If a program of several years' duration cannot be planned, it may not accomplish its purpose. Too many persons think of advertising as an expenditure and a necessary end, instead of as a good, sound investment, and do not realize that while a short-term advertising program may sell some merchandise, it is the long-term program that makes for continued sales.

At the same time that an association's advertising program is creating consumer good will, it is further benefiting association members because it tends to create harmony and to solve problems within the membership.

By means of charts, Mr. Pierce de-

scribed the advertising programs which have been successfully carried through by other associations, such as the California wine industry, the canned salmon industry, the Calavo growers of California and the Washington apple growers, in their efforts to promote sales and good consumer relations.

A humorous talk, "Fun in Gardening," by a stuttering genius, Robert Saxe, of the United States Post Office, provided much entertainment at the association luncheon, which the ladies also attended.

Secretary Reports.

To open the afternoon session, Jack Lincke, who has been the California association's executive secretary for the past fifteen months, reported on the work of his office. He called for the continuing and increasing support and cooperation of the chapter officers. He urged the entire membership to take the responsibility of gaining new members for the association, not only for the larger number, but for solidifying the nursery industry. He suggested that dues be put into a savings fund for future use. Labor problems, particularly the problems of unionization, have caused considerable trouble and alarm to California nurserymen. He stressed the need for a production census and stated that a new questionnaire soon would be sent to the members. It is also hoped that a program to publicize and promote the industry will be inaugurated soon. Along this line, he asked the nurserymen to promote the industry as a whole, to forget the idea of competition with each other and to compete with other industries for the consumer dollar.

"Merchandising and Profit Margins."

Guest speaker of the afternoon was J. E. Deggendorf, traveling representative of the James Graham Manufacturing Co., makers of Wedgewood stoves, who spoke on "Merchandising and Dealer Profit Margins." Although he used his own line of business for illustration, parallels to the nursery trade could be drawn. Mr. Deggendorf urged the nurserymen to watch their books closely and continually for profit and loss and not to make this merely a one-time practice at the end of each year. A businessman's books are the true picture of his business.

To illustrate the need for a good accounting system and closer contact with accounts, Mr. Deggendorf used as an illustration the stove dealer who was personally a fine fellow, had an excellent location for his place of business, had attractive displays,

gave good demonstrations, was careful of his service, kept and used an active prospect file, did a consistent job of advertising and employed a competent bookkeeper, but nevertheless found when the auditor checked his books for income tax purposes that he was gradually losing money on his business, to the point where he would eventually run himself out of business. Although he bought every item of merchandise at a cost to him of at least thirty-five per cent less than the price for which he sold it, the stove salesman had not analyzed his costs and did not know that it was costing him more than this thirty-five per cent difference to sell his stoves.

Mr. Deggendorf presented figures to show how the neglect of a care-



John McDonnell.

ful insight into varying overhead costs was responsible for the lack of profit. In addition to the fixed overhead, which includes such expenses as rent, light, heat and accounting, there was to be considered the varying overhead, including selling commissions, installation expenses, advertising, services, freight and loss on trade-ins. By watching and analyzing his costs, this man found that although he was selling one type of gas range for \$100 and its average cost was \$65, so that he might expect a gross profit of \$35, his fixed overhead amounted to \$12 per range and the varying overhead amounted to \$39, so that he was really losing money on each sale.

People go into business for themselves for three reasons, said Mr. Deggendorf: To be their own bosses, because they think they can pay themselves more for the same effort that would be used working for another employer, and if they have money to invest, because they feel

they can make their own money work for them. If a man makes a \$10,000 investment in a business, \$5,000 in fixed assets and \$5,000 in inventories, he wants to realize a twenty per cent profit, or \$2,000 per year. Since the profit must be made on the inventory, the twenty per cent is not earned on the total \$10,000 investment, but forty per cent must be earned on the \$5,000 in inventories.

It is therefore necessary for the businessman to separate his merchandise into various categories and find out what per cent profit must be realized on each in order to make the total twenty per cent profit on the entire business. Of a \$5,000 inventory, there might be five classes of merchandise, each valued at \$1,000. To realize a \$2,000 profit, \$400 profit would have to be made in each class. To do this, it is necessary to figure the turnover on each type of merchandise in order to arrive at the amount of profit that will have to be made on each and the per cent markup that will give this profit. In a \$1,000 group of merchandise on which \$400 is to be realized annually, a 10-time turnover each year will mean that \$40 must be earned each time the item turns over in order to earn the profit sought, a 6-time turnover would necessitate a profit of \$66 each time and if the turnover was only twice annually a \$200 profit would be necessary. For this reason it is necessary to price inventories properly and to use a systematic formula for markup. A proper cost or accounting system will do this. Unless one knows all these facts about his business and systematically works out his profit margins, Mr. Deggendorf said he would actually be subsidizing some of his merchandise instead of selling it at a profit.

Sales Grounds Plans Discussion.

The afternoon was brought to a close with a discussion of the prize-winning plans in the contest for nursery sales yards and display grounds plans, which was conducted by the National Landscape Nurserymen's Association and the American Nurseryman. George Roeding, of the California Nursery Co., Niles, Cal., director from region 6 of the N. L. N. A., pointed out the details of each plan. In the evening a cocktail party was held in the hotel's Blue and Gold room, followed by dancing in the Garden room. A quartet, composed of Paul Doty, W. B. Clarke, Al Peterson and Homer Bonillas, provided entertainment.

The Wednesday morning session opened with the treasurer's report by [Continued on page 46.]

Oregon Association Fall Meeting

By Julia Hausch, Secretary

The Oregon Association of Nurserymen held its fall meeting at the Multnomah hotel, Portland, September 16 to 18, to coincide with the arrival of Richard P. White, executive secretary of the American Association of Nurserymen, who was the featured speaker at the meeting of the Oregon chapter of the A. A. N. Tuesday afternoon. Total attendance was 150, which included many out-of-state visitors from Washington, Idaho and California.

The advisory board meeting was held Monday morning, September 16, and several legislative and quarantine matters were discussed which were presented on the floor later at the regular session.

At the luncheon, arranged by the Oregon Landscape Association, Homer D. Angell, United States Representative from Oregon, spoke on "Bureaucracy versus Free Enterprise."

The Tri-State Seed Association held its meeting Monday afternoon, and those nurserymen not interested in this organization spent the afternoon visiting nurseries in and around Portland.

Monday evening was highlighted by special movies. R. G. Rosenstiel, of the Oregon experiment station, showed colored slides of various insect pests (many times magnified), together with illustrations of their destructive work on trees and plants, and at the same time lectured on insecticides that would take care of them effectively. C. B. Miller showed colored movies of his trip to the Miami convention of the A. A. N., including the trip to Cuba, and other interesting points, and this was followed by a sound movie in technicolor of the famous Sun valley resort in Idaho, presented through the courtesy of the Union Pacific railroad.

The Oregon meeting was officially opened Tuesday by President Max Horand. After the usual preliminaries, the address of welcome was given by W. E. Upshaw, manager of the Portland office of the department of agriculture, who forecast a new series of quarantines, especially virus and weed quarantines, and voiced the opinions that state quarantines were never very effective and that as far as state control is concerned, while it is doing what it can, it is almost a thing of the past. In touching on politics, he said, "When each group fights for its own bureau, we have bureaucracy. There is a dangerous trend in gov-

ernment when bureaus perpetuate themselves on the peoples' money."

Advisory Board Reports.

Following this address, the advisory board reports were read. As these are of interest to all nurserymen, they are summarized below.

Wayne Melott, Forest Grove, reporting on fruit and nut trees, stated that inquiries made in Oregon, Washington and California showed that cherry is the only type of fruit tree which is in short supply, with supplies of apple, pear, plum, prune and apricot nearly adequate. There will be enough peaches, with the exception of a few varieties. Mr. Melott commented that the commercial growers are complaining that the present peach



Frank A. Doerfler.

crop is not moving because of a sugar shortage, and this may affect new peach plantings. Present sales of peach pits indicate that plantings will be at least double the 10-year average, and there is danger of overproduction in peaches as early as fall, 1947. Plantings of cherry, pear and apple depend on seedling production, and there is not a great tendency at the present time toward overproduction in these lines. The supply of walnut trees will meet the present demand, and a small surplus in filbert trees is expected. Mr. Melott suggested that a cooperative program for moving surpluses might well be established for the good of the industry.

C. E. Moyer, Roseburg, reported that choice, slow-growing ornamental stock will continue to be scarce for several years. Broad-leaved ever-

greens of the more rapid-growing types will soon be up to demand. Prices are expected to remain firm on these items, according to Mr. Moyer.

Reporting on cut holly production, P. E. Lewis, Tigard, said that there are an estimated 500 acres of holly in Oregon. Last year thirty-one cars of cut holly, valued at \$150,000, were shipped from Portland, and indications are that holly growing is an industry with a future in Oregon.

Fred Borsch, Maplewood, member of the advisory board on perennials and rock plants, reports production is at a low peak, and prices have doubled and almost tripled in some instances.

C. B. Miller, Milton, reports that the supply of stone fruit seedlings, especially mahaleb, mazzard and myrobalan, is somewhat less than normal, and will probably be insufficient to meet the demands of the trade. Excessive moisture during the winter and early spring retarded germination, and many seeds decayed or failed to grow. The shortage of these varieties for planting next spring will probably affect the supply of cherry, plum and prune trees for two or three years in the future. The apple and pear seedling supply will probably be sufficient, but no surplus is expected. With the exception of peach, eighty-five to ninety per cent of all fruit tree seedlings grown in the United States is grown in Oregon and Washington.

Karl G. Henrikson, Portland, reported that the immediate future in the landscaping line was "rosy," but warned against complacency. He urged landscapers to build up a good, dependable business now, so that they will have a steady, sound patronage when money is less plentiful and work is more scarce. The old way of planting fast-growing shrubbery is becoming obsolete. The modern home requires smaller, slow-growing types, with a preference for the flowering varieties.

E. Dering, Scappoose, reported roses for the fall, 1946, and spring, 1947 season are still far short of the demand, although the crop is nearly double that of last season. For fall, 1947, and spring, 1948, the outlook is for a normal prewar supply of roses from Oregon.

R. M. Perrin, Portland, reported a brisk demand for gladioli, with prices about the same as for the past two years. No break in the price structure

is anticipated, with the possible exception of a few old line varieties late next season.

Bureau of Nursery Service.

J. S. Wieman, superintendent of the Oregon bureau of nursery service, reported 1828 nursery licenses issued for the 1945 to 1946 season, and expects 1946 to 1947 season licenses to number over 2,000. Some of the special problems worked on this past year are virus of fruit trees, storage problems of the gladiolus growers, special spray materials, survey work affecting nursery crops, weed control and the establishment and maintenance of selected blocks, seed blocks, mother blocks and budwood blocks. The bureau of nursery service, together with the Oregon experiment station, has spent more time on the virus problem of fruit trees than on any other problem. This budding season, the fruit tree growers were personally contacted on the matter of keeping the identity of budwood sources in the nursery row, so that a check can be made from the nursery tree back to the budwood source. Budwood blocks are also being established with indexed mazzard understock.

John Milbrath, plant pathologist at the Oregon experiment station, reported on work being done on stone fruit production. He urged that the nurserymen paint the registration number of the budwood in the nursery row, so that the budwood source can be checked.

R. G. Rosenstiel, of the Oregon experiment station, talked on "DDT Application and Use." He reported that for soft brown scale on holly, DDT gave excellent results by using a hard-driving spray. For boxwood midge, five per cent DDT dust gave excellent results. In wet or threatening weather, use DDT plus sticker, advised Mr. Rosenstiel.

Sam Rich, chairman of the insect pest and disease fund, reported \$2,124.90 received in voluntary contributions from 225 nurserymen to date, of which \$2,000 was turned over to the Oregon experiment station at the Corvallis meeting in June.

Taxation for Research.

For some time it has been apparent that the state legislature's appropriation of funds for the Oregon State College experiment station for work on nursery problems has been inadequate, and at a meeting of the executive committee last February the legislative committee was directed to proceed with investigation of methods to secure enabling legislation to raise funds for taxation of the nursery industry to be used for research pur-

poses. To cover the intervening period before the legislation could be enacted, the insect pest and disease fund was created for the solicitation of voluntary contributions from the nurserymen of the state.

This bill is an enabling act of the help of Frank McKennon, division chief of the department of agriculture, and the assistant attorney general, and at the September 18 meeting it was voted that the legislative committee be given authority to present this bill to the state Legislature for passing.

The bill is an enabling act of the Oregon nurserymen, levying a tax on themselves in proportion to their nursery license fee and acreage, to raise funds for the improvement and protection of nursery culture and the



Avery H. Steinmetz.

nursery industry and to augment the state legislature's appropriation to the college for that same purpose.

This bill calls for every nursery stock dealer and grower to pay annually to the bureau of nursery service of the state department of agriculture, at the same time he pays his license fee, a sum equal to ten per cent of his annual license fee as a dealer or grower. In addition, every grower of nursery stock is to pay the additional sum of \$1 per acre of nursery stock grown by him. On the basis of the 1944-45 licenses collected, it is expected that \$4,600 or more per year will be raised in this way.

Wayne McGill and Frank McKennon reported on state quarantines. Mr. McKennon suggested that an educational approach, such as the one in Oregon for checking budwood sources, rather than quarantine, is a more sensible way of combating insects and diseases. Sometimes quarantines are necessary evils, but they are becoming more and more ineffective

because of methods of transportation which are used today.

G. H. Hansen and A. W. Moore, of the fish and wildlife service, discussed "Rodent Control." The state has forty to forty-five men taking care of this work. Mr. Hansen and Mr. Moore listed pocket gophers, field mice, moles and ground squirrels as giving nurserymen the most trouble.

Bob Rieder, of the Shell Oil Co., spoke on "DD Application and Use." DD is a soil fumigant, and its primary purpose is to control nematodes and certain soil-borne insects occurring in most soils. He reported perfect control of nematodes on pineapple plantings in the Hawaiian islands. DD also increased yields considerably. It is best used at a temperature of 60 to 70 degrees Fahrenheit in ground not too wet nor too dry and well worked. Twenty gallons per acre has proved effective control. In Oregon, DD costs about \$1.52 per gallon, plus machine application cost of \$10 per acre. Treatment of DD to the soil should be made at least two weeks before planting.

Election of Officers.

The meeting of the Oregon Association of Nurserymen was closed with the election of the following officers for the coming year: F. A. Doerfler, Salem, president; Avery Steinmetz, Portland, vice-president; Julia Hausch, Portland, reelected secretary; Sigward Edstrom, Portland, treasurer.

Highlight of the convention was the banquet Tuesday night in the grand ballroom of the Multnomah hotel, with Wayne Melott as toastmaster. Music and a floor show, followed by an address by Ernest Haycox, noted Oregon author, topped off the evening.

A. A. N. Chapter Meets.

At the meeting of the Oregon chapter of the A. A. N., Tuesday afternoon, Richard P. White, executive secretary of the A. A. N., discussed the problems facing the nursery industry at the present time. He believes there will be a sellers' market for a few years yet. With few exceptions, commodity exchange between our country and former enemy countries will not be established until 1947, at best. Dr. White anticipates a slight business recession. There will be a tightening up of all purchasers by 1947-48, but this is going to be temporary and not a serious situation. He suggested good merchandising and advertising as the

[Continued on page 35.]

Developing Sales and Display Grounds

PART X - ADAPTING IDEAS

By Harold E. Hunziker

All through the review of the sales and display grounds plans, this observer kept picking out ideas which he thought might be adapted to his own firm's grounds. This concluding article will show how many of the ideas can be incorporated in an existing property.

Though the resultant plan may not be so ideal as many shown in the contest—which did not have to be worked around existing buildings, trees and roadways—it may be surprising to many to see the numerous ideas adapted to this property. It was solely with this idea in mind that this final article was written.

The betterment of this property was started back in 1937, when a new office building was constructed, well back from the highway (see Fig. 26), and a display garden was built in front of the office. This portion of the grounds has been kept substantially the same. However, since the photograph was taken, the parking area on the right had to be given up when the colonial home-stead was taken over by a sister of the owners. Also a U drive that went in front of the office building had to be abandoned. This residential property is now "hedged" out, though a walk still leads into the display garden from the house, for the enjoyment of those occupants. The owners of the nursery establishment both live off the nursery grounds. A tenant has a home on the property.

Office Altered to Meet Changes.

The office floor plan (Fig. 27) is as it was originally built. On the general plan (Fig. 28), certain alterations are shown to conform with the revised layout. The main change is the shift of the outer office to the present drafting room. This is necessary because more traffic will come to the former side door, as now revised. Here a new door and display window will be added.

Because all working tools, equipment and supplies will be eventually located in the "works court," the room now given over to a tool crib will be used as a foremen's room, with a door outlet to the rear of the service drive. A small portion of this room will be for a laboratory and a photographic darkroom.

The changes on the outside include an overhang over the side facade where seasonal material could be dis-

played; the wide garden terrace (in brick for a sample) for the display of garden furniture, and the stone terrace in the rear for the display of garden equipment.

From the conference room, a sample garden is worked out to the rear, as well as the shaded garden path, as viewed from the side windows. Also, from these views, can be seen the sample shrub rows. Here, in a truly landscape atmosphere, discussions could be carried on with the prospective client.

Packing Shed Becomes Garden Shop.

One of the best ideas gained from the plans was to point a way for the better use of an existing building. Formerly the packing shed was used for assembling orders and had to be used also for the storage of two trucks. With the revised plan, all trucks would be housed in a new 6-truck garage—the only new building needed to complete the works court.

Redoing the packing shed into a garden shop, with storage and storage refrigerator in the basement, seemed to approach an ideal long sought by the owners. By adding an elevator tower, the basement, garden shop and storage loft could be serviced.

Under a proposed covered roof is the pickup platform, serviced by the circular drive around an old existing apple tree.

The inside of the garden shop has display tables, shelves, flower refrigerator and wrapping area. Around the southwest corner is a lean-to greenhouse for displaying house

plants and annuals. No growing is proposed in this limited area. A screened service area to the rear will keep the accumulation of packing materials, boxes, etc., well concealed.

From the plans come the idea that the lath house (the location of this had been debated for several years by the owners) could be located in conjunction with the garden shop, on the north side of this building.

An old evergreen patch afforded a good concealment for the often unsightly heeling-in grounds, close to the center of the selling operations.

Ready-to-go Beds.

Taking the ideas that the ready-to-go beds should be well forward on the property, a tie-in with a sunken garden has been shown on the plan.

The sunken garden idea seems to be somewhat original, as none of the plans showed this feature. However, it was thought the frames for the beds would be less conspicuous if built in a sunken area.

The display platform-way out front has been taken from the plans showing this feature. Here, use of the portable sales units has been shown, on a flagstone terrace. So that the platform will have a back-ground, a hedge pattern is incorporated in the design.

Parking Along Double Roadways.

Possibly the weakest part of this layout is the not-too-ample room for parking. Years ago a plan was started to have a double road run the full length (a quarter mile) of the nursery grounds. Between the roads are



Figure 26. This shows the office building and display garden referred to in this article, soon after construction in 1937.

panels of low-growing plant material. The roadways are framed with borders of sample plantings. These plantings are grouped, but in rows for easy maintenance. This scheme gives a spacious air to the grounds and gives depth to the nursery—a glimpse through a quarter of a mile of growing plants. To add parking areas, the two forward panels are narrowed and are of grass only. On either side is twenty feet of roadway so that parallel parking can be carried on with ease. At least thirty cars can be parked on the grounds without use of the service drive, though in not so orderly an arrangement as shown on some of the plans.

The Works Court.

In the works court all landscape operative equipment and tools have been assembled. Here also are the gross supplies such as topsoil, manure, peat, flagstone, bricks, tan bark, etc. A repair workshop is closest to the office, where men can be signaled by an intercommunication system from the office and garden shop. Within easy reach are the superintendent's and foremen's rooms of the office.

By having this area large, equipment can be loaded on several trucks at one time. By having the service road, that passes the rear of the office, twenty-five feet wide, trucks can pass or pull out of line at will.

With this brief explanation and with the examination of the general plan (Fig. 28) showing the references that have been made to the portions of the plans or details described in this series of articles, one should have the outline for a procedure to follow in attempting to rearrange one's own existing grounds for greater beauty, unity and convenience. Of course, if one has the opportunity to develop new grounds, he should follow one of the plans which best suits the type of business he plans to carry out.

It is the hope that these articles might have inspired many nurserymen throughout the country to make a more attractive and more convenient display and sales area for the marketing of nursery products at a profit, accompanied with the satisfaction that the job was well done.

CONTEST FOR DESIGNS OF SMALL HOME GROUNDS.

Report comes from the secretary of the National Landscape Nurserymen's Association that an even 100 plans were received in the regional prize competition for designs of small home grounds, announced in these pages earlier in the year. The con-

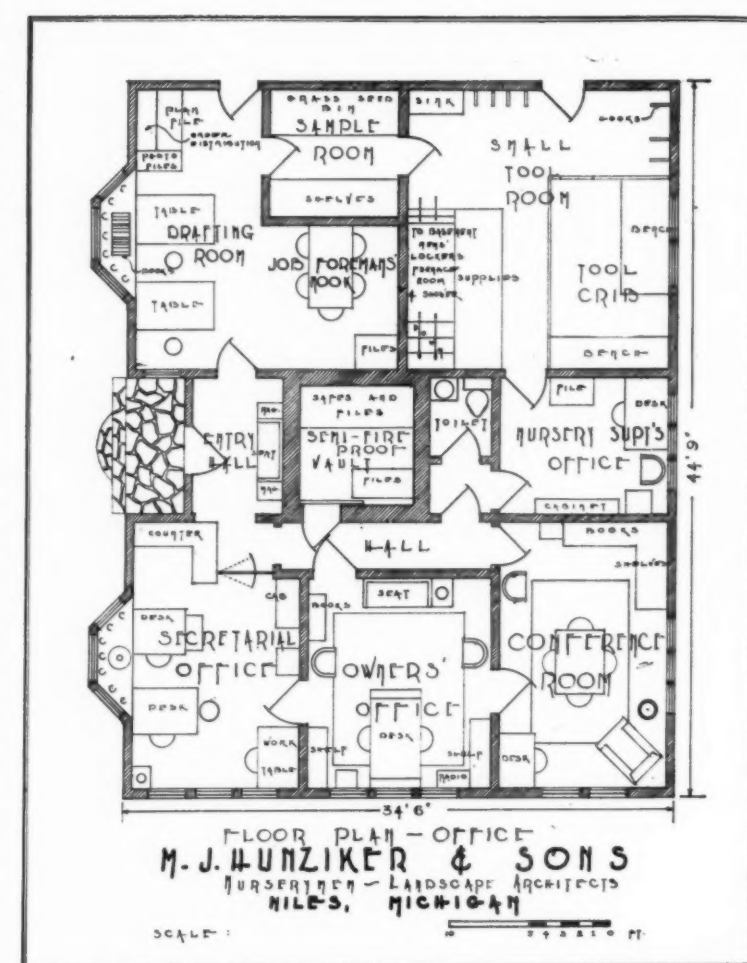


Figure 27. Ground floor plan of office building as originally constructed. See text and general plan (Figure 28) for proposed changes.

test closed September 5. He reports that a majority of these plans were well thought out, and many of them will be worthy of publication.

The process of selecting the prize-winning designs for each region is already going forward, and the awards will be announced in an early issue of the American Nurseryman, in which the best designs will be published. In each of five regions, or zones, four \$50 prizes will be awarded, for the best design of the grounds for a small home in Cape Cod, colonial, ranch and modern style. Three judges have been selected in each planting zone, so that the awards will be made on the basis of suitable materials as well as on the merit of the design itself.

As soon as the judges' reports are complete, the prize-winning designs will be reproduced in the pages of the American Nurseryman in coming issues, as well as additional designs considered worthy of publication.

From among the prize-winning plans in the various zones, a grand prize of \$200 will be awarded to the best all-around plan in any one of the four styles from any planting zone. This award will be made by the chairman of the judges in the five regions.

VOCATIONAL TREE COURSE.

A 2-year course in vocational arboriculture begins this fall at Massachusetts State College, Amherst, Mass. The course is being offered in the college's Stockbridge school of agriculture, which combines classroom study and on-the-job training. In the arboriculture course, six months, October through March, will be spent in school at Amherst; the following six months, April through September, on the job with practicing arborists, and nine more months in classes at Amherst.

Two preliminary weeks of intensive training in tree-climbing will qualify students for the course. A broad pro-

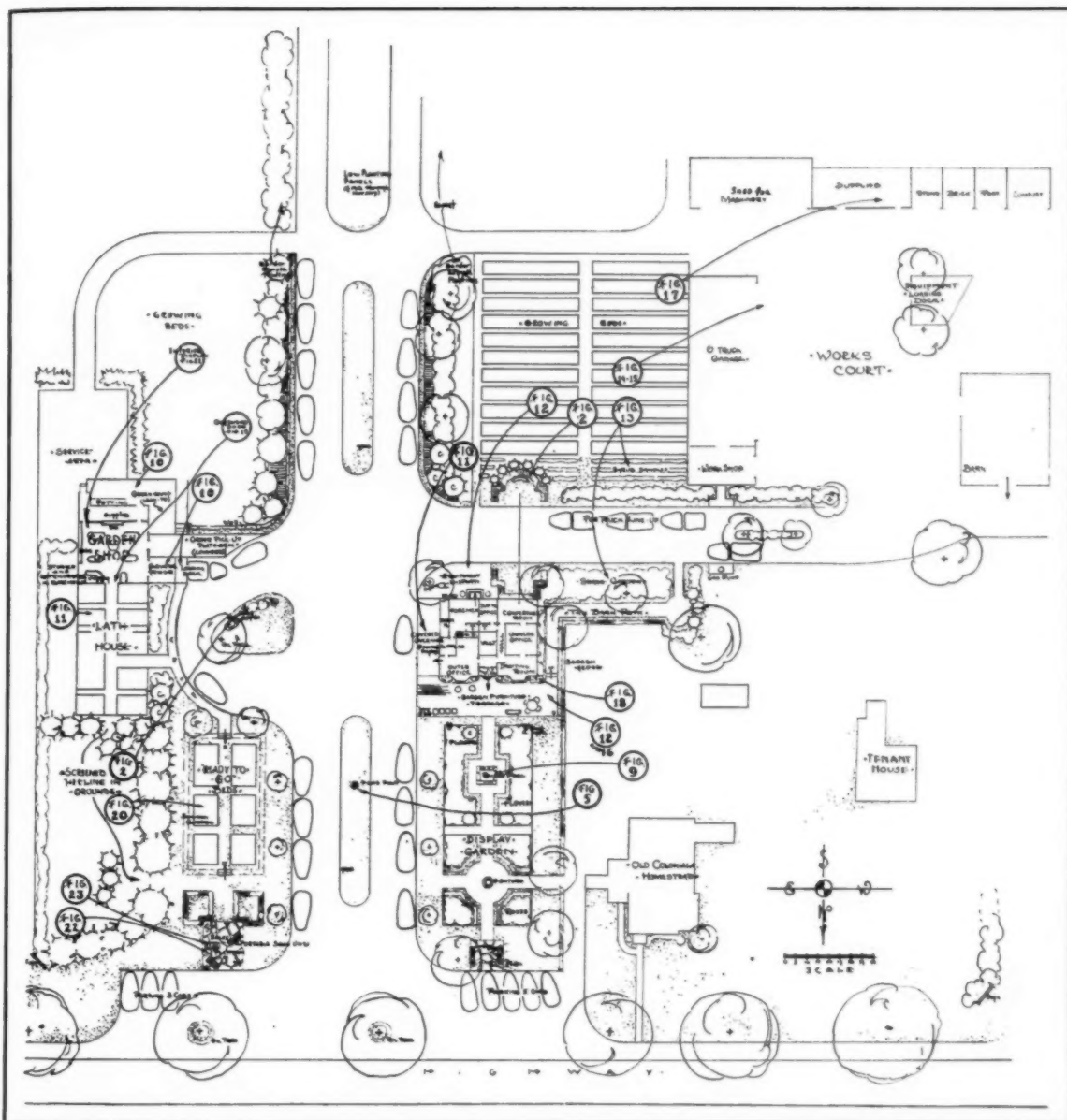


Figure 28. General plan showing adaptation of ideas from contest plans worked out on an existing property. Figure references are to portion of plans and details illustrated in previous articles in this series.

gram has been scheduled, including the following subjects: Soils and fertilizers, plant physiology, tree insects and diseases and their control and recognition of plant materials. Intensive work will be done in the various phases of arboriculture, including pruning, cabling and bracing, line clearance, tree moving, cavity work, diagnosis and office practice. Additional courses are handling of turf, forestry, care of motors and other tools, business English and public speaking.

Theodore F. Mathieu has been appointed assistant professor of arboriculture and will have direct charge of

the training program. He is a graduate of New York state college of forestry at Syracuse University, where his major was in entomology and plant pathology, with emphasis on shade tree work. While attending Syracuse he conducted his own arborist and landscape maintenance service, and had experience with Dutch elm disease control, extension forestry at the park demonstration forest and the operation of a training program for practicing arborists. Mr. Mathieu's experience includes three years with Davey Tree Expert Co. and two years with the Civilian Conservation Corps' forestry program. He was serving as

secretary of the East Orange, N. J., shade tree commission when he entered the armed services, and after his discharge was connected with the training program of the F. A. Bartlett Tree Expert Co.

AFTER being connected with the nursery business for the past twenty years, working for his father in the C. E. Babcock nursery and at C. W. McNair Nurseries, both at Dansville, N. Y., C. E. Babcock, Jr., Avon, N. Y., has started to grow rootstocks and expects to be actively engaged in the selling end of the business within the next few years.

Classes for Employees

Ross R. Wolfe, of Wolfe Nursery, Stephenville, Tex., large grower of fruit and nut trees, has pointed out that one of the best assets his firm has had during the years of its operation has been the satisfied employee, in addition to the satisfied customer.

"A large percentage of our success can be attributed to the cooperation and cordial relations between the three people most interested in the sale of goods—the customer, the employee and the employer. We have tried to build up good feelings between these three," says Mr. Wolfe.

He states that he has always been convinced that customers who buy good products from enthusiastic, courteous, satisfied employees will be the type of customers who will return for more goods.

Realizing the fact that a firm is no better than its employees, the nursery has been constantly giving those who work there an opportunity to improve their lot, as well as being generous in bonuses, paid vacations and hospitalization and helping out financially in other ways.

Someone has said, "You can't plow the same furrow twice with keen interest." An earnest attempt is being made by the firm to teach employees continually the information they will need to cover the entire field of needs in operating their business, supplying this information to individuals who operate some definite job or department. It is a well known fact that training increases production and that added production results in an increase in take-home pay. Mr. Wolfe prefers that the employees continue to progress so that

they can continue to increase their wages accordingly.

Lloyd W. Terry, who holds a master of science degree in horticulture from Texas A. and M. College, heads the horticultural work at the nursery and also assists in personnel work. He teaches a class in horticulture for the employees of the nursery who are interested in that phase of the work. This is done on company time and is part of the training under the GI bill of rights for some of the members of the class who are part of the one-the-job training setup. However, several men who are not veterans are enrolled in this class.

Harold Wood, assistant manager of the firm, teaches a class for those employees who aspire to become foremen or to work in some other supervisory capacity.

The horticulturist also acts as head of the personnel problems section of the business, being available at certain hours to counsel with any employee who has a problem of any kind.

Hugh Wolfe, manager of the firm, is active in teaching company policies to all employees and is contributing to the education of all groups by moving pictures and slides of various educational features that are both entertaining and helpful.

Other employees are receiving training in telephone conversation, the psychology of dealing with people and the organization and operation of offices. Salesmen are taught the art of selling, retail and wholesale, and bonuses are paid to increase their production.

Several employees have completed

extension courses at the University of Texas. These have consisted of instructions on how to train workers, how to supervise workers and the art of selling.

For over six years Mr. Wolfe has either visited or has sent other members of his organization to various nurseries and other businesses for the purpose of studying their methods of operation. He has also sent employees to other nurseries to work free of charge in order to gain knowledge of new methods and measures used by these concerns. He invites any other nursery to utilize the same privilege, as he considers this has been most profitable. When anyone from the Wolfe Nursery visits other nurseries he is expected to make notes and to bring back a report on any information he believes will be practical and helpful in the development of the business.

"If we can help our employees improve their lot in any other way, we have done something for our customers and our firm, as well as our employees, because a satisfied employee is as necessary as a satisfied customer," Mr. Wolfe adds. "We have found through the years that we have been in business that the few good things that we have done for them have paid us dividends far in excess of the expenditure entailed by the help we have given."

A portion of the class in horticulture at Wolfe Nursery is shown in the illustration on this page. Shown, left to right, are: First row—S. N. Ferguson, A. C. Howell, D. L. Hurley, Elmo Foster, Virl Pair, Albert Palmer. Second row—C. E. Cason, Raymond Carr, Melvin McLarty, C. H. Jackson, Ted Heffley. Third row—Leland Carr, Milton Baty, Billy Hardwick, J. R. Holloway, J. C. Thomason, Jess Oakley, Dorothy Oakley. Fourth row—C. A. Davis and H. B. Wood. Standing—Ross R. Wolfe and Lloyd W. Terry. Students absent when the picture was made—T. R. Hicks, E. C. Towerton, Hugh Wolfe and John Mackey.



Student Class of Employees of Texas Nursery Firm.

GARDEN tractors and other small power equipment are to be developed and produced by the Food Machinery Corporation, San Jose, Cal., which recently purchased the Bolens Products Co., Port Washington, Wis. The Bolens company had manufactured the first garden tractors in 1916 and at the time of its purchase was producing, under the trade name of Huski, five models of tractors with a variety of attachments for plowing, harrowing, cultivating, mowing, seeding and fertilizing.

Troubles of Herbaceous Plants

By M. B. Cummings

Herbaceous plants in the nursery are subject to many insect injuries and several diseases. Some of the troubles are annual in occurrence, others spasmodic, periodic or infrequent. The seriousness of any pest or disease depends much upon the weather, especially the amount or frequency of rains; also, much depends upon the prevalence of the trouble in a previous year. All pests carry over from one season to another, but much less abundantly in some seasons than in others. Insects and diseases may live over winter in the soil, within or upon plants, and under favorable conditions may recur in great abundance in a succeeding season.

A few of the more serious troubles are cited for specific information and to illustrate a few fundamental principles in pest control. The problems are many and sometimes complex, but they may be simplified and codified into practical operations based on essential facts.

Mildews and Rusts.

Mildew is a common and recurring fungus disease on annuals and perennials in the nursery. It is much influenced by the weather, especially rain in midsummer. It can always be found on phlox, frequently on roses and sweet peas and on many other plants. Mildew is common on wild and on cultivated grape leaves, is sometimes found on strawberry leaves, peonies and dahlias and frequently on bedding and border plants.

Mildew shows as small white patches or fuzzy growth on leaves and stems in midsummer and later. Toward fall the mildewed areas display small black specks, which are the spore cases, shown in figure 7, wherein are developed the spores that reproduce the disease and carry it over the winter on dead leaves.

Mildew is a surface fungus with most of its structure on the exterior of leaves. Minute threadlike structures, functioning like roots, penetrate the cell structure of the leaf and withdraw food materials for their own growth. Thus mildew is a parasite, living upon another to its detriment, but for its own benefit. This parasite devitalizes its host plant by its mode of living.

It is the perpetual occurrence and universal distribution that makes mildew a permanent problem. One may expect it every year almost everywhere. It is certain to be worse in a

wet season than in a dry one, and it is the frequency of rain rather than its total amount that allows the disease to thrive.

The control of mildew on nursery and garden plants is not difficult. It cannot be exterminated, but it can be kept under control. The two fundamentals are sanitation and spraying or dusting the plants. Sanitation means the collection and disposal of affected parts or entire plants. Diseased leaves, if not too numerous, can be gathered during the growing season, a practice that is easy if begun on time, but laborious if deferred until the disease is widespread. In any case, at the end

of the season all diseased plants that die down should be gathered and buried or burned. If begun in June, dusting with sulphur or spraying with Bordeaux at 10-day intervals will restrict the disease to a few plants and small harm. Late summer sprays, if not preceded by early applications, will be of little value. Spray in June and July rather than in August and September, and do not neglect the fall cleanup.

Rust Disease.

Rust on hollyhocks is a common and serious trouble, the control of

[Continued on page 43.]



Legends to diagrams: Figures 1 and 2, red spider alone and among its webs on underside of leaf; 3, 4 and 5, white grub, its beetle and pupae; 6, black dot much magnified with hooks, containing spores in the center; 7, mildew fungus much enlarged, showing spore formation at tips; 8, mildew on willow leaves, showing black dots composed of spores; 9, plant of rusted hollyhock, leaves dropping at bottom, stems nearly bare; 10, section of rusted leaf enlarged, showing brown or black pustules of rust spores for next year. (None drawn to scale.)

New Products

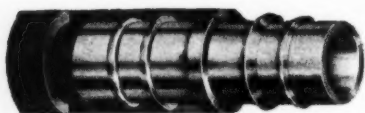
HUMIDIFYING DEVICE.

Back in the market after a wartime absence, the redesigned Christensen Mist Spray is again being manufactured by Pacific Western Engineering Co. under exclusive patent rights. The Christensen Mist Spray now provides the answer to the problem of proper humidification in plant growth. Lath house, nursery and greenhouse operators find that plants are safeguarded automatically day and night with the installation of these Mist Sprays. If they are coupled with a humidistat, the relative humidity can be regulated within two degrees. They are applicable to both outdoor and indoor installation, are effective for irrigation purposes and can be used as an overhead spray, providing natural moisture, or in under-bench installations, where water is dispersed without coming into contact with the most delicate foliage. They are particularly valuable to growers of orchid and rare plants.

GARDEN HOSE MENDER.

An improved new No-Clamp garden hose mender is being offered by Precision Metal Sales Co., New York. This item requires no clamp to mend garden hose, cannot leak or pull out and can be installed in fifteen seconds.

It is machined of aluminum alloy rod, is finely finished and is in one



Garden Hose Mender.

piece. It is effectively packaged on cards and in colorful display cartons.

PNEUMATIC TREE PRUNER.

The Limb-lopper is a precision-built tool that speeds up pruning while greatly reducing operator fatigue, just announced by a Connecticut manufacturer. You simply hook the branch, press a button that responds instantly and the branch is cut. The portable Limb-lopper, which cuts branches up to seven-eighths of an inch in diameter, is ten feet long and weighs eight and one-half pounds. It is constructed of tough and high-corrosion resistant aluminum; the handle is knurled and a 1/4-inch pipe thread adapter is pro-

vided for hose connection to the compressor. Fifty pounds' pressure accounts for 150 pounds' pull on shear. For each piston stroke, there is twenty-eight cubic inches displacement and 120 cubic inches of free air consumed. The retail price is \$54. A pneumatic hand clipper is in the test stage, and announcement of its availability will be made at a later date.

SOIL MOISTURE METER.

A new and improved model of its soil moisture conductivity bridge is announced by Industrial Instruments, Inc. The new model, designated RC-12C, retains all of the basic features and advantages of its predecessor, the model RC-12B, but covers a tenfold wider range of resistance. It will measure soil moisture from approximately field capacity to the air-dry state, corresponding to a resistance range from 0.2 to 2,500,000 ohms. Battery-operated, entirely self-contained and portable, this model incorporates a 1,000-cycle alternating-current bridge source and utilizes a "magic eye" tuning tube as the balance point indicator, to replace the usual galvanometer or earphones.

The electrical resistance method of measuring soil moisture by embedding gypsum blocks directly in the field has been well established and is widely used. The electrical resistance of the block is sensitive to the moisture content of the soil, varying inversely as the "available" moisture. Response is rapid and positive.

PLOW CONTOUR TIRE.

A new "plow contour" tractor tire providing thirty per cent deeper bite, greatly increased traction and thirty per cent longer wear was unveiled at Akron, O., recently at a press preview by the Seiberling Rubber Co., officials of which said it represents the first major change in tractor tire design since 1937.

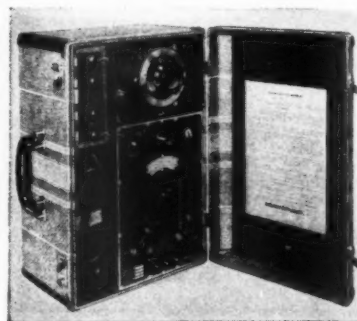
The new Seiberling "plow contour" tire has an entirely new curved, deep-lug tread design that works on newly developed principles of traction. The massive lugs cut through sod, weeds, cover crops, loose soil or heavy mud until a grip is obtained in solid ground. The extra traction thus obtained results in faster, easier work, as well as a substantial reduction in plowing cost.

Tread design also assures better cleaning. Each lug has a contour like the moldboard of a plow, which

scours and sheds the soil. Open center tread design gives the tire greatest possible flexibility so that it automatically cleans itself with every revolution of the wheel.

Another advantage in the new Seiberling tire, demonstrated at the preview, is resistance to sideslip. This greatly facilitates hillside and contour farming, providing better tractor control and reducing crop damage and rutting.

Body of the tire is built of Saf-Flex cord, properties of which insure against bruises and impact breaks.



Soil Moisture Meter.

Tread compound is known as Affinite, which has been used for a number of years in all Seiberling tires. A special rubber, developed by Seiberling chemists for use in agricultural tires, especially resistant to wear and weather checking, rounds out the materials used in the tire's manufacture.

RASPBERRY HARDINESS.

The hardiness of even the best varieties of red raspberries will vary in different seasons, according to findings made in horticultural research in recent years at the Wisconsin agricultural experiment station, at Madison. Although three varieties, June, Latham and Chief, have proved outstanding under Madison conditions, each of these in turn has shown more winter-killing than the other two in certain years.

Chief is the latest variety to make an unusually poor showing. During the 1944-45 winter at least half its canes were seriously injured, a high proportion being frozen back half their length or more. Under the same conditions June and Latham showed only minor injury.

Previously Chief has been as hardy as June and Latham, and in some years more so. For example, June showed an unusual amount of freezing-back after the 1942-43 winter, and Latham also was injured more than Chief at that time.

The causes underlying this vari-

LINING-OUT STOCK

For Fall 1946 and Spring 1947

	Per 100	Per 1000		Per 100	Per 1000
19,900 Abies balsamea, 2-yr., S., 1½ to 3 ins.	\$ 3.50	\$ 25.00	20,000 Pseudotsuga douglasii,		
1100 4-yr., T., 4 to 8 ins.	15.00	120.00	2-yr., S., 2 to 4 ins.	\$ 5.00	\$ 40.00
3500 TT, 8 to 12 ins.	25.00	200.00	2-yr., S., 3 to 6 ins.	6.00	50.00
3500 Abies fraseri, TT, 8 to 12 ins.	30.00	250.00	2200 4-yr., T., 3 to 5 ins.	15.00	120.00
1900 TT, 10 to 12 ins.	35.00	300.00	500 Sorbus aucuparia, 2-yr., T.	15.00	100.00
3500 Acer palm. atrop., from seed,			5000 1-yr., S.	6.00	50.00
2¼-in. pots	30.00	250.00	Taxus baccata repandens, 1-yr., T.	20.00	200.00
2000 Ampelopsis veitchii, 1-yr., S.	6.00	50.00	200 Taxus canadensis stricta, T., 6 to 10 ins.	35.00	300.00
5000 Berberis thunbergii (row run),			200 Taxus cuspidata, 1-yr., T.	20.00	180.00
1-yr., S.	5.00	45.00	5000 2-yr., T.	30.00	250.00
5000 2-yr., S., 8 to 9 ins.	6.00	50.00	10,000 2-yr., T.	35.00	300.00
5000 2-yr., S., 9 to 12 ins.	8.00	65.00	3000 5-yr., TT, 8 to 10 ins.	60.00	450.00
20,000 Thunbergii atropurpurea (row run),			6000 Taxus cusp. brevifolia, 3-yr., T.		
1-yr., S.	6.00	50.00	6 to 10 ins.	35.00	300.00
2000 Biota aurea nana, pot grafts	35.00	300.00	1000 Taxus cusp. brevifolia nana, 2-yr., T.	25.00	240.00
10,000 Biota orientalis (understock), 2-yr., S.	12.00	100.00	5000 1-yr., T.	25.00	240.00
2000 Chamaecyparis plumosa, 1-yr., T.	15.00	140.00	2000 Taxus cusp. brownii, 1-yr., T.	30.00	250.00
500 2-yr., T.	20.00	200.00	2000 2-yr., T.	35.00	300.00
2000 3-yr., T., 8 to 12 ins.	25.00	225.00	2600 TT, 8 to 12 ins.	45.00	400.00
1000 Cham. plumosa argentea, 1-yr., T.	15.00	140.00	Taxus cusp. capitata (from tip cuttings),		
2000 Cham. plumosa aurea, 1-yr., T.	15.00	140.00	T., 6 to 12 ins.	35.00	300.00
3800 2-yr., T.	30.00	250.00	(from seed), 5-yr., T., 8 to 12 ins.	65.00	600.00
1800 T., 8 to 10 ins.	30.00	250.00	1000 Taxus intermedia (spreading), 2-yr., T.	30.00	250.00
1000 TT, 8 to 12 ins.	35.00	300.00	1000 3-yr., T.	35.00	300.00
500 Cham. p. alba aurea, 1-yr., T.	15.00	140.00	1000 Taxus media (Upright), 1-yr., T.	30.00	250.00
500 2-yr., T.	20.00	200.00	2000 Taxus media andersonii, T., 6 to 10 ins.	35.00	300.00
500 TT, 12 to 15 ins.	35.00	300.00	3000 2-yr., T.	40.00	350.00
1000 Cham. p. squarrosa veitchii, 1 yr., T.	15.00	140.00	4000 Taxus media, Halloran strain, 1-yr., T.	30.00	250.00
10,000 Daphne eneorium (rooted cuttings)			2000 2-yr., T.	45.00	400.00
bare root (Spring 1947 shipment)	10.00	90.00	3000 Taxus media hatfieldi, 1-yr., T.	30.00	250.00
250 Daphne mezereum, TT, 10 to 14 ins.	40.00	400.00	5000 3-yr., T., 6 to 10 ins.	35.00	300.00
5000 Euonymus radicans vegetus,			1800 TT, 8 to 12 ins.	60.00	450.00
T., 6 to 10 ins.	25.00	200.00	5000 3-yr., T., 8 to 12 ins.	45.00	400.00
375 Juniperus com. (Oldfield), 3-yr., T.			4000 Taxus media hicksi, 1-yr., T.	25.00	200.00
2 to 6 ins.	15.00	100.00	1000 2-yr., T., 6 to 12 ins.	35.00	300.00
5000 Juniperus excelsa stricta, 1-yr., T.	20.00	180.00	1500 4-yr., TT, 8 to 12 ins.	60.00	450.00
2500 Juniperus excelsa stricta, 2-yr., T.	30.00	250.00	2000 Taxus, Moon's columnaris, 2¼-in. pots	30.00	250.00
1000 Juniperus hibernica, 1-yr., T.	15.00	140.00	1-yr., T.	35.00	300.00
1000 2-yr., T.	25.00	240.00	Thuja douglasii pyramidalis, pot grafts		
500 3-yr., T., 8 to 12 ins.	30.00	250.00	500 1-yr., T.	20.00	180.00
500 Juniperus japonica, T., 6 to 10 ins.	30.00	240.00	1000 Thuja occ. boothii, 1-yr., T.	20.00	180.00
500 Juniperus squamata meyeri, 1-yr., T.	25.00	200.00	1500 2-yr., T.	30.00	250.00
5000 Juniperus pfitzeriana, 1-yr., T.	15.00	150.00	2000 Thuja occ. compacta, 1-yr., T.	15.00	140.00
1500 2¼-in. pots	20.00	190.00	1500 Thuja occ. elegantissima, 2-yr., T.		
3000 2-yr., T.	30.00	250.00	TT, 8 to 12 ins.	30.00	250.00
500 Juniperus pfitz. Kallay comp., 2-yr., T.	30.00	250.00	500 Thuja occ. hoveyi, 1-yr., T.	15.00	100.00
500 Lonicera halliana, 1-yr., T.	10.00	100.00	750 TT, 8 to 12 ins.	35.00	300.00
200 heckrottii, 1-yr., T.	15.00	100.00	5000 Thuja occ. nigra, 1-yr., T.	18.00	150.00
10,000 Picea excelsa, 3-yr., T., 3 to 6 ins.	12.00	100.00	2000 Thuja occ. pyramidalis, pot grafts	35.00	250.00
550 Picea pungens, 2-yr., S., 2 to 4 ins.	45.00	400.00	2500 2-yr., T.	30.00	250.00
20,000 Picea pungens, 2-yr., S., 2 to 4 ins.	6.00	50.00	1-yr., T.	20.00	180.00
2000 Picea japonica, 1-yr., T.	30.00	250.00	50,000 Tsuga canadensis		
5000 2¼-in. pots	25.00	200.00	(collected seedlings), 6 to 10 ins.	40.00	400.00
2500 Pinus banksiana, 3-yr., S., 8 to 16 ins.	3.50	20.00	(nursery-grown), 2-yr., T.		
1500 3-yr., T., 6 to 12 ins.	5.00	35.00	6 to 10 ins.	30.00	250.00
30,000 Pinus resinosa, 2-yr., S., 2 to 4 ins.	5.00	35.00	250 Wistaria sinensis, 1-yr., T. grafts	35.00	300.00
3400 3-yr., T., 3 to 5 ins.	6.00	50.00			
4000 Pinus rigida, 3-yr., S., 8 to 14 ins.	3.00	22.50			
1000 3-yr., T., 5 to 10 ins.	6.00	50.00			
50,000 Pinus strobus, 2-yr., S., 2 to 4 ins.	5.00	35.00			
1950 3-yr., T., 2 to 4 ins.	6.00	50.00			

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ability of hardiness and the winter injury to raspberry canes are not well understood. The University of Minnesota recently has attributed winter injury of raspberry largely to alternate periods of very cold and very mild winter weather. Nevertheless, this does not seem to account fully for the peculiar differences in the effects of various winters on certain varieties grown under identical conditions at Madison.

Throughout the years, the June variety has been the most profitable raspberry grown at Madison. This is partly because it produces average yields among the best under Madison conditions, and partly because it matures most of its crop in time to bring the high prices of the early season market.

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Some European Alpines

By C. W. Wood

When we consider the pinks, it is not easy to decide which one to use, because there are so many lovely ones and only a few of them are hard to handle. It should be noted, however, that most pinks are rather short-lived, needing frequent renewal if a stock is to be maintained. This is true not only of alpine species, but of lowland kinds as well. Perhaps my choice of *Dianthus neglectus* as the best alpine for eastern American conditions (the only section of which I can write from experience) may be challenged by some, especially those who look with favor on *D. alpinus*. I am ready to admit that *alpinus* is a lovely thing, but I have much trouble with it during the heat of summer, and it sometimes leaves me between sunrise and sunset. If you must try *alpinus* in this climate (and it is eminently worth trying), my advice would be to give it about half shade, a light soil containing plenty of limestone chips and water at the root during the growing season. When it is successfully grown, the result will be one of the loveliest of the pinks, a plant with stems about three inches long, bearing large, usually solitary flowers, pale to rose-pink in color, with crimson spots and an eye. These come for a month or more in late spring.

I think, however, that my choice of the high alpine would be *D. neglectus*. It is a lovely plant no matter how it is judged, by its beautiful flowers, rosy-pink above and a buff reverse, or by its quite amiable disposition. A high alpine which grows to 8,000 feet in pastures of the southwestern Alps, in my experience it has been one of the easiest to grow of plants of this type, asking for little more than a gritty loam, preferably limy, I believe, and some shade during the middle of the day. If it is not allowed to become dry at the roots, shade is not essential and is probably not to be preferred. New stock should, however, be kept coming along, because one can never tell when an old plant is going to give up. Propagation is easy from cuttings of new growths in early spring or following the flowering season. Personally, I prefer early spring propagation from cuttings made of plants introduced into gentle heat in March.

Two little European soapworts, *Saponaria caespitosa* and *S. lutea*, should be of interest to all growers of alpines in the more moderate sections. Both can usually be depended

upon to survive our winters here, but a snowless one is hard on them; so I suspect they would suffer in severe climates with light snowfalls. They are worth a trial, however. It is not difficult to make a choice here, because *lutea* is too pale to be showy, while *caespitosa* is a lively shade of rose, bright rose in fact. It is usually less than two inches tall, tufted and growing from a wood rootstock. It bloomed here in northern Michigan in May and June instead of in the July and August flowering period assigned it in the floras, but in any case the season is quite long for so small a plant. It is easy to satisfy with light, gritty soil, sun and a little water in dry weather. Top-dressing with grit in fall and spring will help to keep the crown dry in winter and to keep it from growing out of the soil. Propagation is from seeds, when available, and from cuttings.

Lychnis alpina is a much-maligned plant in garden literature. Pure Alpines cry out against it because it is so easy to handle, and they expect plants that grow at altitudes up to 9,000 feet to be unstable. And some are unsatisfied with the flower color, if we are to believe their wails. Personally, I can see nothing wrong with either. Any plant of passable beauty is welcomed by me, and I suspect it would be by most gardeners. And *alpina*'s color, a bright pink, is quite

acceptable to my uncritical eye. Here in northern Michigan it does well in any sunny spot that is well drained and not desert-dry in summer. It is easily grown from seeds.

One could spend a long time speaking of *silene*, for there are a number of entrancing small plants among the alpine species. I shall omit the one, *S. acaulis*, most readers would expect to find in first place, because it is a very shy bloomer, even in its best forms. There is no denying the fact that it makes a lovely green mat of foliage, but one expects more than foliage alone from an alpine. It is not difficult to cultivate, however, if you want to try it. Give it a poor gritty soil in the sun, and by poor is meant really poor; otherwise it will all go to foliage. When it produces its stemless rose-colored flowers it is a beauty.

I think, however, that one has a better chance to enjoy color (lovely bright pink) if he puts his faith and work in *S. elizabethae*. It does not get as high up in the world as the first-named and consequently is better contented with lowland conditions. Here it did splendidly in the ordinary light soil of the rock garden, with little attention as to watering. It wants sun, of course. It grew four or five inches tall, bursting into bloom, with unusually large flowers for the size of the plant, in May and

BACK TO THE SHERMAN

Planning on being in Chicago for the meetings in January?
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After holding eleven consecutive meetings at the LaSalle Hotel, the Illinois State Nurserymen's Association moves back to the Hotel Sherman for its convention in January. Here are a few suggestions to help you be sure of a room—

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Plan to "double up." The rooms at the Sherman are large and during the war most of them were equipped with twin beds. The proportion of single rooms is very small—your chances are better if you ask for a double room.

Plan to arrive not later than early Monday, January 13. Week-end crowds are lightest these days.

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ILLINOIS STATE NURSERYMEN'S ASSOCIATION

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If you are interested in large numbers of Strawberry plants, or in our pack-out service (whereby shipments are made direct to your customers under your tags), write for details. We have facilities to take care of your Strawberry plant business. Let us figure with you on your particular requirements.

STANDARD VARIETIES	Per 25	Per 100	Per 250	Per 1000
Blakemore, Dunlap, Missionary.....	\$0.35	\$1.15	\$2.00	\$7.00
Ambrosia Late, Big Joe, Gandy, Klondike, Massey, Maytime, Parsons Beauty, Robinson, Suwannee, Southland, Temple .....	.40	1.25	2.25	8.00
Catskill, Chesapeake, Dorsett, Fairfax, Fairpeake, Midland, Premier, Redstar, Starbright .....	.45	1.40	2.50	9.00

EVERBEARING VARIETIES	Per 25	Per 100	Per 250	Per 1000
Gem, Gemzeta, Mastodon, Progressive, Evermore (Minn. 1166).....	\$0.70	\$2.25	\$4.50	\$16.00
New Streamliner	1.00	3.25	7.00	25.00

No extra charge is made for the package or packing on Strawberry plant orders. Prices quoted are for delivery as wanted during the coming shipping season, starting November 1, 1946, and ending June 1, 1947, and apply as follows:

- 25 to 75 plants of one variety at the 25 rate.
- 100 to 225 plants of one variety at the 100 rate.
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Write for a copy of our wholesale list, offering a general line of fruit plants, garden roots, also evergreen and deciduous stock. Please use your printed stationery, showing you are entitled to wholesale rates, when requesting trade prices.

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often continuing into June. It is reported as commencing in April farther south and continuing for two months or more. In any event it has a long and joyous flowering season and is withal a worthy plant. Reputedly rare in nature, it also seems to be little known in gardens, although it is often listed, usually erroneously. But even the interloper is a good, although taller, plant.

Although I have been trying to restrict these notes to one or two, at the most, species in each genus, I cannot let the opportunity pass without saying a word in praise of my old favorite, *S. alpestris*, one of the better alpine catchflies. Because it is so easily handled in the garden, it is often ignored by Alpinists. And because its white flowers are not spectacularly showy, it is often ignored by the ordinary gardener, who should embrace it with joy for its amiable disposition and long season of flowering—April or May through the summer, more or less. If you have not made the acquaintance of

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this little, 5-inch or more charmer, you may find it one of your better rock plant sellers.

Alsine and arenaria, the sandworts, provide a vast assemblage of really good plants and weeds. Of the latter, *Arenaria montana* is my choice. This is true for a number of reasons, mainly for a spectacular flower, freely produced, and for an easy disposition. For a plant that grows at an altitude of 6,000 feet or more, it is remarkably easy to produce in my garden, asking for little more than a light soil in the sun. One should watch for drainage, as the plant resents excess moisture and is finicky about fog and damp. I have had wide spreads fade under a long damp spell, and there seems nothing to be done about it. Fortunately, some of the plant is usually left after a bout with damp, and it does not take long for it to regain its old spectacular self. And that is a plant reaching six inches in height, simply covered with large, half-inch wide, pure white flowers from June to August and more sparingly until frost. It may be grown from seeds or division.

Before passing on to the next genus, I should like to say a few words in praise of *Arenaria purpurascens*, a little plant from the Pyrenees, of tufted habit and charming little rose-purple flowers. If allowed to grow naturally, it will get up to four inches in height and bloom for about a month in June. Here it seeded itself into the lawn and spread among the grass roots, and where it was kept mowed, it bloomed off and on throughout the summer.

As the best of the small linums, *L. salsoloides nanum*, is not an alpine, it must be left out of account here, leaving us *L. alpinum* as the next candidate. A likely candidate it is, too, offering us a wealth of lovely blue salvers from May until fall, profusely in its first flush of exuberance and more sparingly during the balance of the season. All this it does on little in the way of nourishment. In fact, it has always been my opinion that gardeners give it too good living, thereby making it a gross creature of a foot or more stature. Years ago I had seeds of it from a high, 8,000-foot place in the Alps, which given just a little leaf mold in limestone chips, did not exceed four inches and could then vie with any of the other small alpins.

I believe we are on safe ground when *Geranium argenteum* is chosen to represent that genus. There is no lovelier plant, as far as foliage is concerned. Here we find 5 to 7-lobed leaves, silver-plated and displayed in a little tuft—a sight to gladden the

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10,000	Rochester	3 to 4 ft.
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3000	Rochester	18 to 24 ins.
15,000	Hale Haven	3 to 4 ft.
10,000	Hale Haven	2 to 3 ft.
5000	Hale Haven	18 to 24 ins.
15,000	Red Haven	3 to 4 ft.
10,000	Red Haven	2 to 3 ft.
5000	Red Haven	18 to 24 ins.
5000	South Haven	3 to 4 ft.
3000	South Haven	2 to 3 ft.
20,000	Late Elberta	3 to 4 ft.
10,000	Late Elberta	2 to 3 ft.
10,000	Golden Jubilee	3 to 4 ft.
10,000	Golden Jubilee	2 to 3 ft.
5000	Golden Jubilee	18 to 24 ins.
5000	Brackett	3 to 4 ft.
3000	Brackett	2 to 3 ft.
2000	Brackett	18 to 24 ins.

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ARNOLD LAFFIN GREENHOUSES,
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"From a trade packet of Snapdragon Seeds, we were getting about 100 plants which is poor. Upon using MICRO-GRO with Bird Sub-Irrigators, our first flat from a trade packet of seed yielded 1448 plants. Our second and third yielded 2442 plants. We soon found that we had more plants than room for them. We have tried 40 varieties of seeds with MICA-GRO all with great success."

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heart of any rock gardener. And then in June and July it is aflutter with pink saucers, and it is likely to repeat the performance in a minor refrain any time after that. The flower color varies to a considerable degree, running all the way from near white, or even pure white in variety alba, to a shade that is close to magenta—the curse of geraniums, according to some. It is for that reason that seedage is a gamble, for one usually gets more poor colors than good ones. However, when one gets a good shade, such as a soft pink, stock may be increased by pulling the tuft apart in early spring, trying to get at least a small root with each piece. The floras tell us it inhabits "dry, rocky places, especially on limestone," throughout the southern Alps, up to the 7,000-foot line or even higher in a few places. In the garden we find it doing well in sun in soil that is perfectly drained, with the crown surrounded by limestone chips. It is, in my opinion, one of the best of the easy alpine.

If you could see all the restharrow lined up in front of you, I am sure you would not hesitate a moment to choose *Ononis cenisia* as the best. It is about the only one that fits the present purpose, anyway, for it is the only strictly alpine species that I know, be-

BERRYHILL'S LINING-OUT STOCK

for Fall and Spring shipment

	Per 100 Each	Per 1000 Each
<i>Taxus Cuspidata</i> , 2-yr., pots.....	\$0.25	\$0.22½
<i>Taxus Capitata</i> , 2-yr., pots.....	.30	.25
<i>Taxus Hicksi</i> , 2-yr., pots.....	.35	.30
<i>Taxus Hatfieldi</i> , 2-yr., pots.....	.30	.27
<i>Thuja Pyramidalis</i> , 2-yr., pots.....	.30	.25
<i>Lonicera Tatarica</i> , Wheeling strain, potted, 8 to 12 ins.....	.10	.09
<i>Lonicera Zabeli</i> , 6 to 10 ins., pots.....	.12	.10
<i>Euonymus Alatus Compactus</i> , potted.....	.18	.15
<i>Euonymus Radicans Erecta</i> , potted, 6 to 10 ins.....	.18	.15
<i>Spiraea Froebeli</i> , potted, 6 to 10 ins.....	.10	.09

All of the above are vigorous plants, well rooted in pots. Quoted F.O.B. Springfield, O. Packing additional at near cost. Usual terms and conditions as set forth in our Fall 1946 catalog. All material is listed subject to prior sale.

BERRYHILL NURSERY COMPANY

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**SUPERIOR
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**PLANTS
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Lining-out stock
For fall 1946 and spring 1947.
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**LESTER C. LOVETT
MILFORD DELAWARE**

ing found in alpine pastures up to 7,000 feet in the mountains of southern Europe, including Mont Cenis, from which it takes its name. The plant is rather short-lived with me when planted on the level; so I long ago resorted to a wall, giving it soil mostly composed of gravel. Rich soil seems to stimulate it to extra efforts which soon tell on its constitution; on the other hand, a lean medium keeps it low and hard, helping it to stand lowland conditions, especially when it is given the full sun that most authorities recommend for it. Best results here have followed planting in a northeast wall. There it was a dwarf prostrate growth, lasted longer without renewal than in full sun and gave a long (usually June and July, with a few scattered flowers later) season of its lovely pink, shading from light to dark, pea flowers. Grow it from seeds, which are usually available in Switzerland.

Some years ago I had a planting of lady's-fingers, *Anthyllis vulneraria*, in a dry sunny wall that gave me a good opinion of that legume as a garden plant. In the first place, its silvered leaves (an obsession of mine) are season-long ornaments and its pea flowers, yellow in the type, red in variety *dilleni*, white and pink in *alpestris*, violet in *illyrica*, are a delight in the summer landscape. Better yet is *A. montana*. It, too, has silvered leaves, and its flowers are quite fragrant. It is said also to vary somewhat in color, although all that I have seen were some shade of red. All these *anthyllis* forms thrive well in a dry sunny wall and are there seen to best advantage.

Astragalus is not much used in nurseries, probably because they often do not transplant with ease. I suppose the numerous weedy plants among the 900 or more species have also had something to do with their unpopularity. But I have a notion that one selling to ardent rock gardeners could do a lot of business with the alpine species. The plant known to most as *Astragalus alpinus* (*Phaca astragalina* to some) would be a good place to start. It is a small procumbent plant with stems finally ascending to six inches, more or less, and covered with down. While making it rather hard to keep in lowland gardens unless the soil is perfectly drained, this downy appearance makes a splendid background for the blue standards and white wings of the pea flowers. Here these come from early summer onward for six weeks or more. They are easy to grow from seeds in light gritty soil.

Oxytropis is so close to *astragalus* that you and I would scarcely know

ROSES

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Roses Are None Too Plentiful
Order Now

We offer subject to prior sale, 2-year field-grown **ROSES** budded on **Japonica Multiflora** understocks.

SHIPMENTS start after December 15. We can ship when you want them after that date.

Less than 100 lots, **No. 1, 55c; No. 1½, 45c; No. 2, 35c**
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TERMS—Cash with order; no packing charges. Will accept 50 per cent cash with order. Balance C.O.D. plus packing charges. **NOTE**—Order in multiples of ten; we do not break bundles.

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ACER PLATANOIDES— Norway Maples

6 to 8 ft., trans., \$45.00 per 100. 6 to 8 ft., ¾ to 1-in. cal., whips, \$75.00 per 100. 8 to 10 ft., ¾ to 1-in. cal., well branched, \$10.00 per 10; \$85.00 per 100. 8 to 10 ft., 1 to 1½-in. cal., well branched, \$12.50 per 10; \$100.00 per 100.

1½ to 1¾-in. cal. (in the ground), \$1.50 each, plus 25¢ dug bare root. 1½ to 1¾-in. cal. (in the ground), \$2.00 each, plus 35¢ dug bare root. 1¾ to 2-in. cal. (in the ground), \$2.25 each, plus 40¢ dug bare root.

STATE ROAD NURSERY
State and Sproul Rds.
Route 1, Media, Pa.

PEONIES

FESTIVA MAXIMA, grown in virgin soil, Extra heavy divisions.
Cash with order. Packing free.
3 to 5 eyes, \$25.00 per 100;
5 to 8 eyes, \$40.00 per 100.

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GRAPEVINES, CURRANTS, GOOSEBERRIES and BERRY PLANTS

Can also supply Currant lineouts and cuttings.

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Grapevines, Currant Roots,
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Evergreens, Fruit Trees,
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Every dealer knows that offering products with wide-spread consumer acceptance is the key to steady, volume sales. In sprayers and dusters, HUDSON is the *accepted* brand. The "HUDSON Diamond-H" is the familiar, trusted trade-mark. For over 40 years, it has stood for outstanding value—for sound design and construction—for perfection of application and all the other good qualities users want in sprayers and dusters. Sell HUDSON and sell the *accepted* line.

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the difference between the two. They mostly differ in the keel and in the seed pod; so one would not need many of the 200 or so species, and it is hard to choose just one. Having chosen a blue and white astragalus, it might be well to select the ochre-yellow *Oxytropis pilosa*. As it grew here, it had a rather woody stem six to eight inches in height, the entire plant woolly, with unique ochre-yellow flowers in clusters for two months in spring. It makes an attractive plant, easily grown in a sunny well drained spot and quite easy to move in its younger stages. If I were selling it in year-old or older plants, I should pot it up while dormant.

THE address of Danielson's Greenhouse & Nursery, which was given as south of Iron Mountain in a recent issue of the American Nurseryman, should be 130 Brown street, on U. S. highway 8, Norway, Mich.

BARRON E. PHILLIPS, a recently discharged veteran, is the owner of the Park-View Gardens, at 1001 Park street, Box 332, Greenville, Tex. He plans to specialize in the wholesale end of the business and will have as his principal crops bedding plants, bulbs and flowering shrubs.

NORTHERN-GROWN EVERGREENS

Juniperus Virginiana Hilli, 3½ to 4 ft.
Juniperus Virginiana Hilli, 4 to 5 ft.
Juniperus Pfitzeriana, 2 to 2½ ft.
Juniperus Pfitzeriana, 2½ to 3 ft.
Mugho Pine, 15 to 18 ins.
Mugho Pine, 18 to 24 ins.
Black Hills Spruce, 18 to 24 ins.
Black Hills Spruce, 24 to 30 ins.
Taxus Cuspidata, 18 to 24 ins.
Taxus Cuspidata, 24 to 30 ins.

Also a general line of northern-grown evergreens.

Visitors Welcome!
BROWN DEER NURSERIES
Operated by
HOLTON & HUNKEL CO.
P. O. Box 1747
Milwaukee, Wis.

EVERGREENS

We are pleased to offer you the following Evergreens for fall delivery.

	Each
Norway Spruce, 2 to 2½ ft.	\$1.75
Norway Spruce, 2½ to 3 ft.	2.50
Norway Spruce, 3 to 4 ft.	3.25
Juniper Pfitzeriana, 3 to 4 ft.	6.00
Juniper Virg. Burkli, 4 to 5 ft.	5.00
Juniper Virg. Canaertii, 5 to 6 ft.	6.50
Juniper Virg. Glauca, 5 to 6 ft.	6.50
Juniper Virg. Keteleeri, 5 to 6 ft.	6.50
Mugho Pine, 15 to 18 ins.	1.75
Thuja Occ. Woodwardi, 2 to 2½ ft.	2.25
Tsuga Canadensis, 3½ to 4 ft.	4.00
Tsuga Canadensis, 4 to 4½ ft.	4.75
Tsuga Canadensis, 4½ to 5 ft.	5.50
Taxus Cuspidata Nana, 15 to 18 ins.	4.00

EAGLE CREEK NURSERY CO.
NEW AUGUSTA, IND.

VIBURNUM BURKWOODI

New—Fragrant—Hardy
Pinkish-white flowers in May
Heavy pot-grown stock for lining out. Spring 1947 delivery.

Per 100 Per 1000
2½-in. pots \$35.00 \$300.00
F.O.B. Dayton, Ohio.
No charge for packing if check accompanies order.
Write for new trade list.

THE SIEBENTHALER COMPANY
Dayton 5, Ohio

LAKE'S
SHENANDOAH NURSERIES
Shenandoah, Iowa

Wholesale growers of
a fine assortment of

GENERAL NURSERY STOCK
Your inquiries will be appreciated.

Mississippi Nurserymen Meet

By F. S. Batson

The fourth annual convention of the Mississippi Florists' and Nurserymen's Association had a larger attendance than any previous convention, even though this was essentially a reorganization meeting held after a period of five years when there was little association activity. There were 182 registrants from four states at the convention held at the Heidelberg hotel, Jackson, Miss., September 19 and 20.

I. H. Bass, Jr., of the Bass Pecan Co. nursery, Lumberton, was elected president of the association for the next year. W. F. Adams, of Loraine's Flower Shop, Gulfport, and R. L. Brent, of Brent Nurseries, Jackson, were elected vice-presidents. Prof. F. S. Batson, of Mississippi State College, was reelected secretary. With the exception of the business sessions, there were separate schools for the florists and nurserymen.

Nursery School.

Prof. F. S. Batson, associate horticulturist at Mississippi State College, started the nursery school session with a discussion of fundamentals of plant propagation. The part of his talk that provoked the most discussion was that on propagation media for rooting cuttings. He presented some data and color slides on preliminary tests that had been recently conducted, using three media: Sand, sand and peat and vermiculite, or Zonolite. Zonolite is a new material that shows considerable promise as a rooting medium for certain plants. In the pictures shown of results gained from the use of various media, greater rooting response was evident in the case of certain cuttings, such as Magnolia soulangeana, Ginkgo biloba, purpleleaf barberry, viburnums, Ilex decidua, camellias and azaleas. Professor Batson said that in tests on a number of plants, Zonolite or a mixture of sand and peat was more desirable as a rooting medium than sand.

Dr. J. P. Overcash, assistant horticulturist at Mississippi State College, gave a talk on small fruits with commercial possibilities in Mississippi. It was shown that the demand for strawberry plants in Mississippi is developing considerably, and there are no nurseries or growers producing plants. At the present time, growers in this state must look to other states for sources of plants.

Boysenberries and youngberries are grown and propagated throughout Mississippi, and there is considerable demand for these plants at the present, since there is a good outlet in this state for both fresh and frozen fruit. Dr. Overcash pointed out the possibilities for sales of muscadine grape plants in the more desirable varieties such as Thomas, Scuppernong and Topsail. Some of the recently introduced perfect flowered varieties, such as Burgan and Millard, should increase the sale of muscadine plants. It was recommended that nurseries grow some of the varieties of bunch grapes, such as Concord and Delaware, grafted on Dog Ridge rootstock. It has been shown that these produce good yields over a long period of time, whereas varieties grown on own roots must be replaced after about two crops.

Billy Broome, of Broome's Flowers, Vicksburg, presented an interesting description of horticulture in certain European countries. While with the army of occupation in Europe, he had opportunity to spend considerable time with some of the commercial establishments in Belgium. He told of the method of making front-yard plantings of shrubs and the frequent use of topiary work in the front yards, as contrasted with the usual American method of leaving

the front yard open and making foundation plantings. He commended the thrift of the European florists and nurserymen and their efficient utilization of space. Only a few acres ordinarily are owned by one nurseryman for growing plants, and every foot of land is utilized to the fullest. Nearly all plants grown in the nurseries are of high quality, and the shrubs are similar to those used in the United States. Many plants, particularly azaleas, are sold in pots, rather than balled and burlapped.

The Friday morning session started with a discussion of plant diseases by Douglas Bain, of the Mississippi agricultural experiment station. A general discussion covered disease causes and methods of dissemination and control.

J. E. Burns, of Brookhaven Nurseries, Brookhaven, discussed the methods that his firm uses in the production of gladioli. He named Maid of Orleans, Princess, Debonair, Beacon, Minuet and Picardy as being some of the leading varieties used by his firm.

R. P. Colmer, chief inspector of the state plant board, gave a report of the white-fringed beetle situation in the state. It was reported that few

NURSERY STOCK

	Per 100	Per 1000
Viburnum Setigerum, seedlings, 4 to 6 ins.	\$5.00	\$37.50
Styrax Obassia, seedlings, 6 to 10 ins.	10.00	....
Buxus Microphylla Compacta, Kingsville Dwarf Boxwood, 7-yr., spreads, 3 to 4 ins.	50.00	400.00
Cornus Florida Plena, Double Dogwood, 4 to 5 ft.	Per 10 \$20.00	Per 100 \$175.00
5 to 6 ft.	25.00	250.00
6 to 8 ft.	35.00	350.00
Cornus Florida Weichl. Tricolored-leaf Dogwood, 1 1/2 to 2 ft.	8.50	75.00
2 to 3 ft.	15.00	125.00
3 to 4 ft.	22.50	200.00

Packing at cost.

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BLUEBERRY PLANTS

CERTIFIED—all shipments with stunt-free certification attached. Rancocas and Jersey in quantity—other varieties in small lots. 12 to 15 ins. high, \$50.00 per 100, \$450.00 per 1000—to clean them up. F.O.B. Moorestown.

JOSEPH G. O'NIELL

P. O. Box 32 Moorestown, N. J.

EVERGREEN TREES

	Per 10	Per 100
WOODWARD GLOBE ARBORVITAE 143 12 to 16 ins.	\$12.50	\$100.00
AMERICAN ARBORVITAE 150 3 to 4 ft.	17.50	150.00
UPRIGHT YEW 50 12 to 18 ins.	24.00	175.00
PFITZER JUNIPER 50 12 to 18 ins.	20.00	175.00
50 18 to 24 ins.	25.00	225.00
30 3 ft. or over.	30.00	275.00
ANDORRA JUNIPER 20 30 ins. or over	20.00	175.00
WAUKEGAN JUNIPER 25 30 ins. or over	20.00	175.00
PROSTRATE JUNIPER 50 12 ins. or over	15.00	125.00
COLORADO BLUE SPRUCE 150 12 to 18 ins.	20.00	175.00
200 18 to 24 ins.	25.00	225.00
NORWAY SPRUCE 1000 18 to 24 ins.	1.00	75.00
DOUGLAS FIR 250 12 to 18 ins.	1.00	75.00
WHITE PINE 500 2 to 4 ft.	20.00	175.00
SCOTCH PINE 500 18 to 24 ins.	20.00	175.00
AUSTRIAN PINE 250 24 to 30 ins.	25.00	200.00
MUGHO PINE 1500 12 to 18 ins.	12.00	100.00
2000 16 to 24 ins.	15.00	125.00
NORWAY PINE 1000 18 to 24 ins.	10.00	90.00

LARGER SIZES:

SCOTCH PINE 500 4 to 7 ft.	\$3.50 ea.
JACK PINE 500 5 to 8 ft.	3.00 ea.

HUNT'S EVERGREEN NURSERY

On U. S. No. 20 ROLLING PRAIRIE, IND.

new infestations were found this year, and only one nursery was included in any newly infested area. It was reported that 406 nurseries were doing business in Mississippi and that, from indications of inspection tags issued to out-of-state nurseries, there is plenty of room for additional production of nursery stock in Mississippi. Mr. Colmer presented several instances in which there was need for more research on insects of ornamentals, since there has been little work done on insects affecting ornamental stock in the south.

R. O. Monosmith, state extension horticulturist, presented an interesting lecture, with color slides, of the work that is being done in horticulture at the bureau of plant industry, at Beltsville, Md. One of the most striking things shown was the collection of new azalea varieties developed in the breeding program. A series of slides showed the method employed in planting seeds in flats of Zonolite.

Banquet and Dance.

One of the highlights of the convention was the banquet and dance. W. W. Broome, president of the association, presided at the banquet. Several guests, including those from other states, were introduced. Herbert Dale, a student in ornamental horticulture at Mississippi State College, gave a short talk telling of the setup for training students at the college. The main speaker of the evening was Dr. Fred Mitchell, president of Mississippi State College. He pointed out the various facilities available at the state institution for training students in horticulture. Dr. Mitchell expressed a desire that mutual understanding between the college staff and the commercial men be maintained, as in the past. He discussed the need for experimental work in ornamental horticulture in the south and invited members of the association to visit the institution, present the problems of the growers and use the facilities that are available to those in the florists' and nursery industries. Following the banquet there was an opportunity for dancing and visiting with friends.

The choice of a convention city for next year was not made. Gulfport is making a strong bid for the convention, but the board of directors will make the final decision at a later date.

THE Recker Nursery, Possumtown, N. J., was purchased this past April by Randolph M. Stelle, Bound Brook, N. J., who will operate it under the name of Possumtown Nursery.

TAXUS

	In Lots of	
	5 to 24	25 to 100
Cuspidata, 18 to 24 ins.....	\$3.50	\$3.25
Cuspidata media, 18 to 24 ins.....	3.50	3.25
Cuspidata media, 2 to 2½ ft.....	4.50	4.25
Hicksi, 3 to 3½ ft.....	4.50	4.25
Cuspidata nana, 18 to 24 ins.....	4.50	4.25
Repandens, 18 to 24 ins.....	4.00	3.75
Repandens, 2 to 2½ ft.....	5.00	...

JUNIPER

Canaerti, Keteleeri, Glauca and Cupressifolia (green), 3½ to 4 ft.....	4.75	4.50
Canaerti, Keteleeri, Glauca and Cupressifolia (green), 4 to 5 ft.....	5.50	4.25
Canaerti, Keteleeri, Glauca and Cupressifolia (green), 5 to 6 ft.....	6.50	6.25
Depressa plumosa, 18 to 24 ins.....	2.25	2.00
Depressa plumosa, 2 to 2½ ft.....	2.75	2.50
Pfitzeriana, 2½ to 3 ft.....	4.25	4.00
Pfitzeriana compacta, 18 to 24 ins.....	2.50	2.25
Virginiana, 5 to 6 ft.....	4.50	...

EUONYMUS

Patens, 18 to 24 ins.....	2.00	1.75
Patens, 2 to 2½ ft.....	2.50	2.25
Vegetus, 18 to 24 ins.....	2.25	2.00
Vegetus, 2 to 2½ ft.....	3.00	2.75

MYRTLE

Bowles Variety, 2¼-in. pots.....\$15.00 per 100

All plants, especially Junipers, are thrifty and heavy-sheared. We cannot accept orders for more than 50 per cent in Taxus. Truckloads only.

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Mail want list for prices.

THE WESTMINSTER NURSERIES
Westminster, Md.

LINING-OUT EVERGREENS
and AZALEAS
Sturdy Plants.

DUNLAP NURSERIES
Knoxville 16, Tenn.

60,000 TAXUS

Pots, transplants and rooted cuttings.
2500 J. Pfitzeriana
2 to 3 ft. and 3 to 4 ft.
To trucks F.O.B. our nurseries.
HUMPHREYS LANDSCAPE SERVICE
Mt. Sterling, Ky.

Evergreens

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Write for wholesale price list.

GARDNER'S NURSERIES

Rocky Hill, Conn.

ORNAMENTAL EVERGREENS

Trees & Shrubs

BAGATELLE NURSERY

P. O. Huntington Station, N. Y.

Expanded Vermiculite for Propagation

Tests at the Plant Industry Station, Beltsville, Md., during the past two years have demonstrated that expanded vermiculite, an industrial insulating material, is superior to soil or sand for certain horticultural purposes, particularly as a medium for the germination of seeds and the rooting of cuttings. Vermiculite is obtained from naturally occurring deposits in Montana and other locations in this country. It is classified as a hydrated magnesium aluminum silicate. The ore is said to contain about one million thin plates or scales per inch and is made up of two minerals, vermiculite and viotite. In the former the scales are bonded together with water molecules and in the latter with potassium. When the ore is heated to about 2000 degrees Fahrenheit the water is converted to steam and expands the ore to twelve to fifteen times its original volume. The resulting product is sterile, light in weight, highly absorbent and retentive of water and air.

Vermiculite manufactured for horticultural use is sold nationally under the trade name Terra-Lite. Information as to the nearest location for obtaining the horticultural grades of vermiculite may be obtained from the Vermiculite Research Institute, 2540 Eastwood avenue, Evanston, Ill. It is available in four different particle sizes. These are grade SF (very coarse)—particles approximately one-half inch in size; grade No. 1 (coarse)—particles approximately one-quarter inch in size; grade No. 2 (medium)—particles approximately one-eighth inch in size, and grade No. 3 (fine)—particles approximating sand in size.

Subirrigated Flats.

For seedling production best results have been obtained when flats containing vermiculite were subirrigated. For this purpose fiber-resin watertight Neponset inserts are inexpensive and easy to use. The insert, available in standard sizes, is fitted into the flat, one inch of SF Terra-

Experiments with vermiculite have been made chiefly in the propagation of florists' crops, but it has been found valuable by nurserymen also in growing seedlings and rooted cuttings. The qualities of this medium and the advantages of its use are described here by a government research worker.

Lite or coarse gravel placed in the bottom and a 2½ or 3-inch clay pot set on this for adding water. The flat is then half filled with No. 1 Terra-Lite and covered with the No. 2 grade to within a half inch of the top of the flat. Water containing one tablespoonful per gallon of a complete fertilizer such as 5-10-5 or 4-12-4 is then added through the clay pot until the surface of the vermiculite is moist and overflow solution is dripping from the bottom of the flat. The seeds are then planted and covered with No. 2 Terra-Lite to a slightly greater depth than when soil is used. Ordinarily the seed flat needs no further attention for several days.

It is possible to produce seedlings in vermiculite without subirrigation,

but more care in watering must be observed because the vermiculite is extremely light and is easily displaced. This can be overcome to some extent by covering the seeds with shredded sphagnum, or the flat can be covered with a pane of glass to prevent drying out. No such covering is necessary when watertight inserts which provide for a water reservoir are used.

Comparison with Soil.

Seeds planted in vermiculite usually germinate more promptly and in better percentage than when planted in soil. This is particularly true of small seeds and those especially susceptible to preemergence damping-off. Better aerating and water-supplying properties of the vermiculite seem to be the reasons for these responses, as well as the fact that it has been sterilized by heat and contains insufficient food materials for pathogenic microorganisms.

Vermiculite is not a fertilizer and

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2-yr. strong seedlings.....	13.00
3-yr. transplants, blooming size	23.00
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3-yr. transplants, blooming size	26.00

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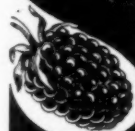
This paper, "Expanded Vermiculite Useful for Soilless Culture, Germinating Seeds and Rooting Cuttings," was prepared by Neil W. Stuart, physiologist, division of fruit and vegetable crops and diseases, bureau of plant industry, soils and agricultural engineering, Agricultural Research Administration, United States Department of Agriculture, Beltsville, Md.

This report is released through the Society of American Florists, under the terms of the memorandum of agreement between the society and the Department of Agriculture.

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does not contain enough nitrogen and phosphorus for plant growth. Various plants differ somewhat in their nutrient requirements, but good results have been obtained with a number of flower and vegetable seedlings growing in vermiculite by feeding them at weekly intervals with a solution of one tablespoonful of 5-10-5 or 4-12-4 fertilizer per gallon of water. Additional nitrogen may be necessary for continued growth of some species. This can be supplied by adding a teaspoonful of nitrate of soda or a half teaspoonful of sulphate of ammonia or ammonium nitrate per gallon of water. Withholding the fertilizer will result in hardening the seedlings and checking their growth so that they can be held in that condition for several weeks.

Seedlings started in vermiculite transplant well, apparently because heavier root systems develop in vermiculite than in soil. These roots are rarely injured and are well covered with vermiculite when lifted from the seed flat. It has been observed that little root injury occurs if the flats are allowed to dry out slightly before transplanting is started.

For Rooting Cuttings.

Vermiculite is also useful as a propagation medium in the cutting bench. Its use for this purpose was

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Standard 3 to 5 eye divisions

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Ottawa, Kan.

suggested by V. T. Stoutemyer in 1942. Advantages of the material are its high water-holding capacity and good aeration. Usually roots grow somewhat more rapidly in vermiculite than in sand, and consequently the cuttings require less time in the bench. A mixture of peat and vermiculite has been recommended for rooting acid-soil plants such as azaleas.

Other uses of vermiculite are being investigated. These include its use in seed testing, for seedbeds of tobacco and tomato, as a soil conditioner and mulch, as a medium for growing pot plants or forcing bulbs and in propagation of various kinds of cuttings. Prospective users should avoid vermiculite that has been chemically treated for industrial purposes with a resin that is designed to regulate water absorption.

SET OKLAHOMA DATES.

Dates for the winter meeting of the Oklahoma State Nurserymen's Association were set at an executive committee meeting held September 11, at the office of Sneed Nursery Co., Oklahoma City. The Oklahoma state group will meet January 16 and 17, at the Huckins hotel, at Oklahoma City. Jim Parker, Leo Conard and J. A. Maddox were appointed to the program committee.

Those members of the Oklahoma City Retail Nurserymen's Association who attended the convention of the Texas Association of Nurserymen recently held at Dallas gave reports at the monthly meeting, held September 3, at the field office of the Classen Co. Nursery. After the regular business meeting, Mr. Wallace, of the Gallo-way-Wallace advertising agency, presented a group advertising plan designed to sell nurserymen's services in the Oklahoma City area. Funds have been pledged to carry on this plan for a period of ten weeks.

MEETING CALENDAR.

November 17 to 20, American Institute of Park Executives, Jefferson hotel, St. Louis, Mo.

December 2 and 3, Minnesota State Nurserymen's Association, Radisson hotel, Minneapolis.

December 4, Western Pennsylvania Nurserymen's Association, Webster Hall hotel, Pittsburgh.

January 7 and 8, Western Association of Nurserymen, Kansas City, Mo.

January 14 to 16, Illinois Association of Nurserymen, Sherman hotel, Chicago.

January 16 and 17, Oklahoma State Nurserymen's Association, Huckins hotel, Oklahoma City.

February 4 to 6, New England Nurserymen's Association, Hotel Statler, Boston, Mass.

New Books and Bulletins

POCKET BOOK ON WEATHER.

Although foretelling the weather is becoming more a matter of complicated indoor analysis than simple outdoor observation, it is possible for the average man to make forecasts with an understanding of the weather signs and the aid of a few simple instruments. A recently issued pocket-size book, "The Weather," by George Kimble and Raymond Bush, published by Penguin Books, Inc., at 25 cents, presents in an informal manner accurate technical information on the historical development of man's interest in weather, the methods of professional meteorologists and the use of these methods by the layman.

Amateur forecasters are warned against basing predictions merely on such simple relationships as the traditional association of certain winds with types of weather, and folklore and superstitions are explained scientifically or disproved. In discussing the main raw materials of weather—pressure, temperature and wind—the significance of air pressure and the structure of the atmosphere are explained. Characteristics of seasonal weather are discussed, with valuable information to growers of living stock on such conditions as fog, rain and frost. Cloud formations and the changes they foretell are described and illustrated with a 16-page portfolio of photographic reproductions.

"GENERAL HORTICULTURE."

In an endeavor to prepare a clear and concise treatise of practical and workable information on almost every phase of horticulture for use as a textbook for undergraduates in agricultural schools and colleges, Prof. Thomas J. Talbert, chairman of the department of horticulture and forestry of the University of Missouri, has rewritten and expanded his previous work, "Fruit Crops," published in 1939, and has added to it five chapters dealing with different horticultural subjects, such as various phases of the horticultural industry, vegetable growing and home grounds beautification.

Although titled "General Horticulture," this 452-page textbook published by Lea & Febiger, Philadelphia, Pa., at \$4 per copy, is better described by its subtitle, "Principles and Prac-

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tices of Orchard, Small Fruit and Garden Culture."

The material is presented along the same plan as that successfully used by Professor Talbert for the past thirty years in teaching and investigational work at the University of Missouri and other agricultural colleges. The text is written in simple, understandable language and gives an adequate and modern view of the subject at hand with the aid of 120 illustrations.

BUSINESS PLANTINGS BOOK.

Illustrations of examples of industrial plantings and short, snappy copy will tell the story in a booklet entitled "Industry Need Not Be Ugly," to be issued by the National Landscape Nurserymen's Association for personalized distribution by its members to industrial concerns in their territories. Prepared under the supervision of an experienced advertising agency, the sixteen pages, one of which is to be in full colors, will be printed with the best materials available. The entire booklet is original in design, styled to win the attention of top executives of industrial firms.

Copies of the booklet, which come with personal business cards and envelopes to match, are to be made available to N. L. N. A. members only, to be used in those local territories in which their landscape departments normally operate. They will be sold only to members doing landscape contracting work and are to be used solely in solicitation of landscape planting contracts. The limited edition will be sold in lots of twenty-five to 300 to any one firm, and orders must be placed by November 1.

SELLING PLANTS IN POTS.

For some years information on selling plants in pots has been supplied by Cloverset Flower Farm, Kansas City, Mo., for the benefit of the nurserymen and florists who buy Cloverset pots. The experience of the firm in selling roses, perennials and shrubs in such containers has made the instruction of first authority. This has now been issued in a 12-page pamphlet, which merits the study of anyone who considers selling by this method.

VICTOR EVANOFF, who has been a landscape gardener and nurseryman for nearly twenty years, opened his own nursery this past April. The business will be known as Vic's Nursery and is located at 11681 Minock avenue, Detroit 23, Mich.

NOW IS THE TIME

To place your order for Lining-out Stock and Hedge Plants to insure you of having plenty of stock to fill your fall and spring orders. These are times of shortages; play safe by placing your order now.

LINING-OUT STOCK.		Per	
ACER DASYCARPUM. Silver Maple.		100	1000
6 to 12 ins., s.	\$1.00	\$ 8.00	10.00
12 to 18 ins., s.	1.25	10.00	12.50
18 to 24 ins., s.	1.50	12.50	18.00
2 to 3 ft., s.	2.00	18.00	25.00
3 to 4 ft., s.	3.00	25.00	
CERCIS CANADENSIS. Redbud.		100	1000
4 to 6 ins., s.	1.50	10.00	15.00
6 to 12 ins., s.	2.00	15.00	20.00
12 to 18 ins., s.	2.50	20.00	30.00
18 to 24 ins., s.	4.00	30.00	
ULMUS AMERICANA. American Elm.		100	1000
4 to 6 ins., s.	.75	6.00	8.00
6 to 12 ins., s.	1.00	8.00	12.00
12 to 18 ins., s.	1.50	12.00	15.00
18 to 24 ins., s.	2.00	15.00	
ULMUS PUMILA. Chinese Elm.		100	1000
6 to 12 ins., s.	1.50	10.00	15.00
12 to 18 ins., s.	2.00	15.00	20.00
18 to 24 ins., s.	2.50	20.00	30.00
2 to 3 ft., s.	\$0.50	4.00	30.00
3 to 4 ft., s.	.60	5.00	40.00

HEDGE PLANTS.		Per	
LIGUSTRUM AMURENSE. Amur North Privet.		10	100
Rooted C. L.O.	.30	2.50	20.00
6 to 12 ins., 2 br. up.	.45	4.00	30.00
12 to 18 ins., 2 br. up.	.60	5.00	45.00
12 to 18 ins., 3 br. up.	.70	6.00	55.00
18 to 24 ins., 2 br. up.	.70	6.00	55.00
18 to 24 ins., 3 br. up.	.85	7.50	70.00
LIGUSTRUM IBOLIMUM.		10	100
Ibolum Privet.			
Rooted C. L.O.	.30	2.50	20.00
6 to 12 ins., 2 br. up.	.45	4.00	30.00
12 to 18 ins., 2 br. up.	.60	5.00	45.00
12 to 18 ins., 3 br. up.	.70	6.00	55.00
LIGUSTRUM OVALIFOLIUM.		10	100
California Privet.			
Rooted C. L.O.	.25	1.75	15.00
6 to 12 ins., 2 br. up.	.35	2.50	20.00
12 to 18 ins., 2 br. up.	.45	4.00	30.00
12 to 18 ins., 3 br. up.	.55	5.00	40.00
18 to 24 ins., 2 br. up.	.55	5.00	40.00
18 to 24 ins., 3 br. up.	.70	6.00	50.00

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The most popular of the privets in the South. Almost evergreen, rich green foliage, compact in growth. Do not plant north of the Ohio River. Have a quantity of seedlings unsold at this time—fine for lining out. Order while stock is complete.

		Per 10		Per 100		Per 1000	
4 to 6 ins., s.	\$0.60	...	\$ 4.00	...	
6 to 12 ins., s.80	...	6.00	...	
12 to 18 ins., s.	1.00	...	8.00	...	
18 to 24 ins., s.	1.25	...	10.00	...	
2 to 3 ft., s.	2.50	...	20.00	...	
12 to 18 ins., 2-yr. br., s.	\$0.40	...	3.00	...	25.00
18 to 24 ins., 2-yr. br., s.50	...	4.00	...	35.00
2 to 3 ft., 2-yr. br., s.50	...	4.50	...	40.00
18 to 24 ins., tr., well br.60	...	5.00	...	45.00
2 to 3 ft., tr., well br.80	...	7.00	...	60.00

3 per cent discount and free packing when cash accompanies order. All stock is sold F.O.B. McMinnville, Tenn. Boxing, baling and packing at cost. Nursery terms and conditions to nurserymen known to us or with established credit.

HEDGE PLANTS—Cont.		Per	
LIGUSTRUM SINENSE.		10	100
South Privet.			
4 to 6 ins., s.	...	\$0.60	\$ 4.00
6 to 12 ins., s.	...	.80	6.00
12 to 18 ins., s.	...	1.00	8.00
18 to 24 ins., s.	...	1.25	10.00
2 to 3 ft., s.	...	2.50	20.00
12 to 18 ins., 2-yr. br., s.	...	\$0.40	3.00
18 to 24 ins., 2-yr. br., s.	...	.50	4.00
2 to 3 ft., 2-yr. br., s.	...	.50	4.50
18 to 24 ins., tr., well br.	...	.60	5.00
2 to 3 ft., tr., well br.	...	.80	7.00
3 to 4 ft., tr., well br.	...	1.00	9.00

SPIRAEA THUNBERGI.		Per	
Small white flowers, feathery foliage.		10	100
L.O. grade	...	3.00	25.00
6 to 12 ins., s.	...	4.00	30.00
12 to 18 ins., s.	...	5.00	40.00
12 to 18 ins., hedging	...	.75	6.00
18 to 24 ins., hedging	...	1.00	7.00
18 to 24 ins., br.	...	1.25	10.00
2 to 3 ft., br.	...	1.50	12.00

SPIRAEA VANHOUTTEI.		Per	
L.O., field-grown		10	100
6 to 12 ins., s.	...	.35	2.50
12 to 18 ins., s.	...	.40	3.00
12 to 18 ins., c.	...	.40	3.00
9 to 12 ins., hedging	...	.50	4.00
12 to 18 ins., hedging	...	.65	5.50

SYMPHORICARPOS VULGARIS.		Per	
Coralberry.		10	100
L.O. grade, c.	...	2.00	15.00
6 to 12 ins., c.	...	2.50	20.00
12 to 18 ins., c.	...	3.00	25.00
18 to 24 ins., c.	...	4.00	35.00
12 to 18 ins., tr., br.	...	5.00	45.00
18 to 24 ins., tr., br.	...	6.00	55.00
2 to 3 ft., tr., br.	...	8.00	70.00

DEUTZIA		Per	
Varieties:		10	100
Crenata, pink.			
Pride of Rochester, double white, tinged with pink.			
L.O. grade, rooted cuttings	...	2.50	17.50
6 to 12 ins., c.	...	3.00	20.00
12 to 18 ins., c.	...	3.50	25.00
12 to 18 ins., hedging	...	4.00	35.00
18 to 24 ins., hedging	...	5.00	45.00
12 to 18 ins., well br.	...	6.00	50.00
18 to 24 ins., well br.	...	9.00	80.00
2 to 3 ft., well br.	...	11.00	100.00

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HILLTOP NURSERIES
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Apple Stocks

TROUBLE AHEAD WITH DWARF APPLE TREES.

Various nurseries are advertising and selling a great many "dwarf" apple trees. They bring a price fully twice that of other trees. Most of these trees go to amateurs and backyard growers. It is probable that most such customers expect to have trees of the Paradise dwarf type that will never be more than six or eight feet tall. A great many of them will be disappointed, and the reputation of the nursery trade will suffer a sad blow.

The principal difficulty is that nurserymen do not fully realize the difference between the various asexually propagated rootstocks. It seems as though they think that any rootstock propagated by layers, or by any means other than seedlings, is a dwarfing stock. This is not true. Practically all the asexually propagated stocks are what are known as the Malling rootstocks. There are at least sixteen Malling rootstocks known in this country, and many of them will dwarf our varieties little or not at all. The Malling rootstocks are known by numbers, and the only one now in general use that will produce the trees that most amateurs want is Malling IX. Trees on Malling VIII, the old French Paradise, will be of about the same size, but this rootstock is now little used, perhaps because it does not propagate in the layer bed so well as Malling IX. Most of our varieties budded on the other Malling rootstocks will grow as rapidly for the first five or six years as trees on seedling rootstock, though trees on Malling I to VII inclusive will show more or less distinctly dwarfing effects in time and are called semidwarfing stocks. These seven semidwarfing stocks are not alike in their dwarfing effects. It is difficult to state how they rank, but in order of increasing dwarfing effect or decreasing size of trees they rank roughly as follows: I (IV, V, VI, II), III, VII. The four stocks in parentheses are similar in their dwarfing effects. The other Malling rootstocks X to XVI, inclusive, dwarf the trees little or not at all. It is not enough to call trees "dwarf apple trees." It is necessary to specify what particular rootstock is used, and great care is necessary to be sure that the rootstock is true-to-name. They can be identified as certainly as cultivated varieties.

Another source of disappointment to the grower of dwarf trees is rooting from the scion. If the tree is planted

too deep or if soil is drawn around the base of the scion, roots from above the union will be certain to grow and the dwarfing effect of the rootstock will be lost. Dwarf trees should be budded four to six inches above the ground. Then the tree can be planted a little deeper than it was in the nursery with less danger of scion rooting.

Unless more discrimination is used in growing and selling dwarf apple trees the nursery trade is in for a lot of criticism. The Malling stocks are discussed in bulletin 418 of the Massachusetts experiment station, Amherst, which is available on request. J. K. Shaw.

HARDY APPLE STOCKS.

Of the forty-four kinds of hardy apple and crab apple stocks being tested in the various experimental plantings of the Maine agricultural experiment station, Orono, six can

RED LAKE CURRANTS
RED RASPBERRIES
Hansen's BUSH CHERRY
PARADISE ASPARAGUS

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L. J. RAMBO'S WHOLESALE NURSERIES
Bridgman, Michigan

now be discarded as unsuitable material, say Merle T. Hilborn and J. Howard Waring, in the 1945 report of the state experiment station.

Anis has been found to be definitely lacking in vigor and forms rather poor crotch angles. Malus Wisanowoye is somewhat more vigorous than Anis, but is still comparatively low in vigor and the general form of the tree has little to commend it. Paragon and Pewaukee were considered doubtful in hardiness in 1944 and on the basis of the past year's data can be discarded. Surpasse Frequin has winterkilled almost completely when tested in several locations, even in one planting in southwestern Maine under rather mild climatic conditions. The injury to this

NORTHERN-GROWN LINING-OUT STOCK

Even grade, grown in peat-prepared beds. Handled and packed to reach you in perfect condition. Evergreen seedlings are scarce and will be for some time. While 2-yr. seedlings are not so easy to handle, any good nurseryman knows that the best transplants come from 2-yr. seedlings.

Per 1000

Black Hills Spruce, 2-yr.,
2-in. seedlings \$15.00
Colorado Blue Spruce,
2-yr., 2 to 3-in. seedlings 25.00
Douglas Fir,
2-yr., 2 to 3-in. seedlings 30.00

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EAST LANSING, MICH.

SHRUBS
SPECIMEN EVERGREENS
ROSES
LINING-OUT STOCK.

Complete assortment.

Fall 1946 list now ready.

Write for copy.

ONARGA NURSERY CO., INC.
Onarga, Ill.



Growers of a complete
line of deciduous and
coniferous species.

JEWELL NURSERIES, INC.
Lake City, Minn

C. M. Hobbs & Sons, Inc.
BRIDGEPORT INDIANA

Established 1875

FRUIT TREES

GINKGO

NORWAY MAPLE

SOFT MAPLE

SWEET GUM

THURLOW WILLOW

WELL GROWN EVER-
GREENS, in variety.

**FRUIT TREES
AND
SMALL FRUITS**

HARRISON BROTHERS NURSERIES

G. Hale Harrison, General Manager
BERLIN, MARYLAND

WASHINGTON ASPARAGUS ROOTS
1-yr. and 2-yr.
Raspberries, Red and Black
Grape Cuttings
The above in quantity lots.

THE PAW PAW NURSERIES
Paw Paw, Mich.

variety was typical blackheart in the woody tissues which was occasionally accompanied by some sunscald of the bark. Another variety that had previously shown some promise, 4-7-16, a selection from the Iowa agricultural experiment station, has been completely winterkilled in all the test plantings. The injury was mostly sunscald on the bark.

The test plantings along the St. John river, in Aroostook county, have demonstrated that Robusta No. 5 is one of the hardiest of all the stocks under observation, surpassing even Virginia and Hibernia. Robusta No. 5 is a selection of *Malus robusta* obtained from the Canadian department of agriculture. The selection is not particularly desirable as stock material for commercial orchards because of the growth characteristics of the tree. There is a tendency for a rather heavy growth of small spurs, and the branching habit is far less desirable than that of most other stocks. The present indications of superior hardiness may not continue as the variety is tested over longer periods of time, and even if definitely superior in hardiness to Virginia and Hibernia, it may well be that the extra hardiness is not necessary in commercial orchards. However, as a trunk-forming stock for home orchards in Aroostook county, Robusta No. 5 may prove to be one of the best stocks to use.

Of the newer importations *Bell-fleur Kitaika*, *Coulon Renette*, *Kulon Kitaika*, *Noir de Vitry*, *Tayezhnoie* and *Yakontowoye* continue to show promise and will be propagated for further trials in commercial orchard areas.

ST. LOUIS OFFICERS.

John Sanders was elected president of the Landscape and Nurserymen's Association of Greater St. Louis at its regular September meeting held at Goswin Gern Nursery. Other officers include vice-president, Fred Larsen; secretary, William Weber, and treasurer, Gene Waldbart. Refreshments were served by the host. Ladies were invited to this evening meeting, and there was a good attendance.

GODDARD TO NEW POST.

Dr. David R. Goddard, formerly of the University of Rochester, at Rochester, N. Y., has been appointed professor of botany at the University of Pennsylvania, at Philadelphia. He has been active in the field of research, primarily in plant respiration and fermentation.

EVERGREENS SPECIMEN STOCK

Here are just a few selected from
our big assortment.

JUNIPERS

	Per 100
<i>Chinensis femina</i> , 5 to 6 ft.	\$500.00
<i>Chinensis femina</i> , 4 to 5 ft.	400.00
<i>Excelsa stricta</i> , 3 to 4 ft.	400.00
<i>Excelsa stricta</i> , 2 1/2 to 3 ft.	300.00
<i>Excelsa stricta</i> , 2 to 2 1/2 ft.	240.00
<i>Hibernica</i> , 5 to 6 ft.	250.00
<i>Hibernica</i> , 4 to 5 ft.	215.00
<i>Hibernica</i> , 3 to 4 ft.	185.00
<i>Japonica</i> , 3 1/2 to 4 ft.	375.00
<i>Japonica</i> , 3 to 3 1/2 ft.	325.00
<i>Japonica</i> , 2 1/2 to 3 ft.	275.00
<i>Scopulorum, Chandler's</i> , 5 to 6 ft.	550.00
<i>Scopulorum, Chandler's</i> , 4 to 5 ft.	450.00
<i>Tamariscifolia</i> , 2 1/2 to 3 ft.	325.00
<i>Tamariscifolia</i> , 2 to 2 1/2 ft.	275.00
<i>Virginalis</i> , dark green, 4 to 5 ft.	500.00
<i>Virginalis</i> , dark green, 3 1/2 to 4 ft.	400.00
<i>Virginalis</i> , dark green, 3 to 3 1/2 ft.	325.00
<i>Virginalis</i> , dark green, 2 1/2 to 3 ft.	275.00
<i>Virginalis</i> , light green, 3 to 3 1/2 ft.	325.00
<i>Virginalis</i> , light green, 2 1/2 to 3 ft.	275.00
<i>Virginiana, Blue Rapids</i> , 6 to 7 ft.	700.00
<i>Virginiana, Blue Rapids</i> , 5 to 6 ft.	550.00
<i>Virginiana, Blue Rapids</i> , 4 to 5 ft.	450.00

THUJA

<i>Orientalis</i> , 5 to 6 ft.	300.00
<i>Orientalis</i> , 4 to 5 ft.	250.00
<i>Orientalis</i> , 3 to 4 ft.	200.00
<i>Excelsa</i> , 5 to 6 ft.	350.00
<i>Excelsa</i> , 4 to 5 ft.	300.00

Complete list ready now.

WILLIS NURSERY CO.

Ottawa, Kansas

TSUGA CAROLINIANA

Carolina Hemlock, for Lining Out
Branched trees, excellent roots, 8 to 12
ins., \$65.00 per 1000. Packing included.
Orders booked for fall delivery in 1000
lots only.

THE SCKIPANO NURSERY CO.,
Warren, Pa.

RHUBARB

Chipman's Canada Red
25,000 No. 1. divisions

BASS NURSERY
Chadron, Neb.

APPLE SCIONS

Let us have your want list. We have
a good supply of leading varieties.

GOLDEN EAGLE NURSERY
Golden Eagle, Ill.

News from Northwest

NURSERY EXHIBITS IN WEST WASHINGTON FAIR.

Several nurserymen from western Washington took advantage of the facilities at the Western Washington Fair to exhibit their products. The exhibition building for nursery and floral products just recently has been modernized. New lights of fluorescent type have been installed on the ceiling. Illumination on the side displays is provided by indirect fluorescent lights as well as spotlights for exhibits needing additional lighting.

Because the fair was the first one that had been held for four years, there was a week of record-breaking attendance. Sunday, September 15, was the high day of the week, with over 78,000 persons passing through the gates. Of course, a high percentage of these visited the floral building, giving the exhibitors as large an audience as they could hope for.

Cash as well as ribbon awards were presented to the winners in the various competitive groups. In the nursery display section limited to evergreens and other hardy plants, Bonnell Nurseries, of Renton, won first award with a garden scene surrounding a small pool. Broad-leaved evergreen shrubs had been arranged by V. H. Geary, of the Bonnell firm, to provide accent and contrast in foliage texture and color. Knute Hjertstedt, of Rainier Beach Perennial Gardens, won second place with a well designed corner garden. The center of interest in this garden was provided by a small naturalistic pool into which poured water from a small waterfall. Many kinds of shrubs were tastefully placed about the pool.

G. Richards, of Tacoma, designed the display of alpine and perennials of Miethke Nurseries, which won first place in its class. The display consisted of rare alpine shrubs arranged about a rock formation. Second award in this group went to Bonnell Nurseries on an exhibit of dwarf shrubs. The award in the miscellaneous nursery class was won by Jerome Hanus, of Puyallup, with a group of hybrid rhododendron plants.

Some of the most colorful displays were those of commercial dahlia growers. Mrs. J. A. Menghel, who operates Far West Gardens, Tacoma, received first prize for a fine display of many types of dahlias. Maplewood Dahlia Gardens, Tacoma, won second prize.

One of the largest growers of gladioli in the area, O. R. Roe, won several

awards given for exhibits of gladioli as well as cut blooms in baskets. Rosaia Bros., Seattle, won first place in a professional florists' class in which any type of flowers could be used. Brown's Floral Shop, Tacoma, won first prize in a class limited to outdoor-grown cut flowers.

Other exhibits which won merit were those of the Offerman Delphinium Gardens, Seattle. Thomas Floral Co., operated by Rosaia Bros., Seattle, exhibited some fine hybrid orchids as specimen plants in full bloom.

Eugene Sandahl, superintendent of all the floral exhibitions, is responsible for the success of the displays. He is looking forward to a bigger and better showing next year. C. W.

OREGON HOLLY GROWERS FORM NEW ORGANIZATION.

The organization of growers supplying a major share of the nation's holly supply was completed September 19, at Portland, Ore., when the Oregon Holly Growers' Association

adopted bylaws and elected officers and a board of directors. Articles of incorporation had been filed earlier by a committee, after James Moore, marketing specialist on the staff of Oregon State College, at Corvallis, had been consulted.

The new group formed is a non-profit, educational service organization, intended to provide means for group action by the holly growers of Oregon, who lead the United States in production of English holly. The association was authorized to affiliate with other organizations, such as the American Association of Nurserymen and florists' groups, to adopt and register a trademark to distinguish the holly shipped from that state, and to regulate the use of such emblem.

P. E. Lewis, of Tigard, was elected president of the new body. Other officers elected are vice-president, C. L. Richardson, Hillsboro, and secretary-treasurer, Irma Thomas, Oregon City. Members of the board of directors, in addition to the officers, are: Ambrose Brownell, Milwaukee; Max Lorenz, Portland; H. A. Pearce, Astoria; L. Y. Smith, Troutdale; Verne Casber, Lake Grove, and Mrs. C. R. Ford, Portland.

President Lewis said that the or-

STRAWBERRIES — CANEBERRIES

To the wholesale trade we offer the following varieties of small fruit plants for delivery after October 15. All prices F.O.B. shipping point.

STRAWBERRIES

STANDARD VARIETIES	Per 100	Per 250	Per 1000
Blakemore, Dunlap, Aroma.....	\$1.25	\$ 2.50	\$ 7.50
Klondike, Missionary	1.40	2.75	8.50
Klonmore, Premier, Fairfax, Catskill.....	1.50	3.00	9.50
Tennessee Supreme, Tennessee Shipper.....	1.60	3.10	10.00

EVERBEARING VARIETIES

Progressive	1.75	3.40	12.00
Gem, Mastodon, Evermore.....	2.50	5.50	17.00
Gemzeta	4.00	9.00	25.00
Streamliner	6.50	12.00	40.00

CANEBERRIES

Youngberry	6.00	14.00	50.00
Regular Boysenberry	6.50	15.00	55.00
Thornless Boysenberry	7.50	16.00	60.00

Cold storage available for late spring orders.

Packing-out service available direct to your customers under your tags. No charge made for packing or packages.

LEAMON STRAWBERRY NURSERY

Route 1

Ooltewah, Tenn.

Located in the highlands of east Tennessee.

STRAWBERRY PLANTS

IOWA-GROWN

Streamliner Everbearing
Gem Everbearing

Evermore Everbearing
Senator Dunlap Premier

Our varieties are true and unmixed. We promise careful packing and prompt shipment. In season we are equipped to supply large orders of freshly dug plants on short notice. We would be glad to quote you on a few thousand or several million.

C. D. WRIGHT,

Hamburg, Iowa

25,000

Peach trees in leading varieties.

20,000

1 and 2-year-old Apple in leading varieties.

★ ★

A general line of Shade Trees, Evergreens and Shrubs. We are still booking orders for Apple and Pear grafts for Spring shipment.

EGYPTIAN

Nursery and Landscape Co.

Farina, Ill. Phone 64

To The Wholesale Trade

We have the following items to offer:

Apple, 1 and 2-year-old

June-budded Peach

Peach, 2-year

Pear, 1 and 2-year-old

Plums, Apricots and Cherries

We welcome inquiries, and let us furnish your needs.

FRAZIER NURSERY CO.

Box 1 Smithville, Tenn.

1946 • SPRING • 1947

Send us your want list.

Apple, Peach, Plum, Apricot,
Grapes, June-bud Peach.

Shade Trees and Ornamentals.

Commercial Nursery Co.

DECHERD, TENN.

Maloney's

Offer for Fall and Spring delivery 2-year Standard Apple, Sweet and Sour Cherry and Standard Pear. Also 2-year Shrubs, bushy, well rooted, twice transplanted. Write for wholesale circular.

**MALONEY BROS.
NURSERY CO., INC.**

Danville, New York

Wholesale growers of
SMALL FRUIT PLANTS
Grapes, Currants and Raspberries—
our specialty.
Hydrangea P. G.

FOSTER NURSERY CO., INC.
69 Orchard St. Fredonia, N. Y.

ganization plans to standardize the cartons used for wholesale shipment of Oregon holly, and will work toward uniform systems of grading and of varietal names of holly clons. He also said it was planned to bring experts on various phases of growing, harvesting, packing, shipping and marketing holly before the group as speakers, and to feature open-forum discussions among members on their problems. He pointed out that the present demand for Oregon holly greatly exceeds the supply and that this demand is increasing faster than new plantings are coming into production. For these reasons, he said that the price outlook on holly is slightly upward, in reflection of increased costs of labor and materials. It was also brought out at the meeting that a change in express classification will advance transportation costs somewhat.

G. H. A.

CALIFORNIA NOTES.

Echoes of the convention of the California Association of Nurserymen at Berkeley, September 23 to 25, are still being heard throughout the state. The attendance was the highest ever recorded, and attendance at the meetings was better than usual. Jack McDonnell, Oakland, who was general chairman of the convention, is modest when being complimented for the success of the meeting, saying it was because of the splendid work done by the others on the various committees.

A recent heat wave in the interior of the state caused considerable damage to Napa county grapes, which were just ready for the harvest, and to some of the smaller nursery stock which was not protected from the sun and the drying winds.

Thompson grape growers in the state will ask the legislature next spring to lower the regulations on girdled grapes. Girdling of the vines is said to hasten maturity, but it reduces size and affects sugar content. Such grapes are used for the table trade, and nurserymen in the state will be able to sell many plants to new vineyards for this purpose if the laws are changed as requested.

Gross income to Tulare grape growers for 1942 to 1945 has been estimated at \$400 per acre. This year competition between raisin processors and wine makers is pushing to new records the price per ton paid to the growers.

The shell bark disease, which is becoming common on lemons in home gardens and is found to some extent in nurseries, is not the scaly bark which is a serious pest in commer-

**RASPBERRY
PLANTS**

Chief Red—Fall 1946 delivery

Per 1000

Top grade, 1/4 inch and up. **\$45.00**No. 1 grade, 3/16 to 1/4 inch **35.00**No. 2 grade, 1/16 to 3/16 ins. **25.00**

Delivery October 10 to December 1.

Strong, hardy, well rooted sucker plants. Machine dug. Free boxing and packing. 10 per cent discount if check comes with order, 20 per cent discount on orders of 25,000 plants of top grade or No. 1 grade. Sample sent on request. References furnished.

THIEF RIVER FALLS NURSERIES

Thief River Falls, Minn.

**SMALL FRUIT PLANTS
and
VEGETABLE ROOTS**

We grow for the wholesale trade only.

KRIEGER'S WHOLESALE NURSERY

BRIDGMAN, MICH.

RED RHUBARB

Per 100

McDONALD **\$20.00**CANADA RED **40.00**

All good size, No. 1 divisions. Cash with order—packing free. Write for prices on larger quantities.

KEELER'S GARDENS

Sioux Falls, So. Dak.

STRAWBERRY PLANTS

We will have several million plants of the following varieties, Robinson, Dunlap and Gem everbearing, for spring, 1947. Let us quote prices on your needs.

PINE HILLS FARM
West Olive, Mich.

cial lemon groves. Nurserymen having requests regarding this disease or suspecting it on their growing or resale stock should get information about its control from their farm advisor or agricultural commissioner.

The bureau of entomology and plant quarantine suggests the reading of all labels on aerosol (bomb-type) insecticides. It has approved no formula for use by the general public which contains more than three per cent DDT. Nurserymen selling such bombs with a higher percentage of DDT are subject to civil and criminal prosecution.

California pear production is estimated to have been 32,500,000 bushels, off about four per cent from 1945. The gross returns to the growers, however, were the highest on record.

Clyde Denning is manager of the Washington Nursery, at San Lorenzo. This nursery is mainly a producer of cut roses, but also furnishes a large number of budded roses to other greenhouse rosegrowers in the immediate area.

The Burr-Christian Nursery, at Hayward, is enlarging its salesroom with a conservatory-type show house, which will be connected by a narrow passageway to the present salesroom. Mr. Burr reports that the present salesroom facilities are too small and that he hopes the conservatory will make it possible to display better potted nursery stock as well as house plants and cut flowers, which the firm is selling in increasing amounts.

The Shell Oil Co. has formally opened its agricultural laboratory near Modesto. The new, half-million dollar, air-conditioned buildings, which house a staff of about fifteen trained research men, is on a 150-acre farm. The entire efforts of the staff will be devoted to the development of products to help the modern farmer, florist and nurseryman to fight destructive insects and blights. Roy Hansberry, director of the laboratory, is quoted as giving these three purposes as the aims of the farm: A research institution for developing new ideas; a proving ground for natural and synthetic products derived from petroleum, and a clearing-house for scientific knowledge and information where agricultural problems may be presented and solved. Senior research specialists at the laboratory include, in addition to Dr. Hansberry, who has come from Cornell University: Dr. Leon C. Glover, entomologist formerly at the Maine experiment station; Clyde W. McBeth, nematologist who, until moving to California, was in charge of the



CARSCALLEN NURSERY LABEL COMPANY

ALUMINUM LABELS

We have just produced a new plant label made of aluminum. It is sturdy, bright, and will not tarnish. Dress up your plants with good looking labels—Your name and address printed in 3 lines—1000 \$6.00, 5000 \$27.50, 10,000 \$55.00—

F.O.B. Pasadena—30 days delivery.

Carscallen Nursery Label Company
65 West Union, Pasadena, California

RICH & SONS NURSERY

Offers

a general line of Nursery Stock.

Write for catalog.

Retail catalogs in color available to the trade at cost.

40-page general catalog, 30c

32-page Bulb and Rose Catalog, 25c

RICH & SONS NURSERY

Rte. 4, Hillsboro, Ore.

DEL RANCHO FORTUNA

FRUIT TREES and GRAPEVINES

P. O. Box 548
McFARLAND, CAL.

BALED SHINGLE TOW

(CEDAR SHAVINGS)

WM. A. JOHNSTON

408 Postal Bldg., Portland 4, Ore.

NOTICE

Limited production makes it impossible to book orders for new customers.

HOWARD ROSE COMPANY

Hemet, California

PACIFIC COAST NURSERY

2244 N. Skidmore Ct.
Portland 11, Ore.

Pioneer seedling growers on the Pacific Coast since 1914.

Specializing in fruit tree seedlings. Angers Rooted Quince Cuttings, Chinese Elm Seedlings, Norway Maple Seedlings and English Privet.

We also have Norway Maples, 3-yr. branched, and Norway Whips and E. W. Birch, 3 yrs. old, well branched.

We aim to please with quality stock.

John Holmason & Sons, Props.



SHINGLE TOW
(Baled Cedar Shavings)

MONARCH SHINGLE CO.
P.O. Box 37 North Portland Ore

nematode studies at the United States Department of Agriculture branch station, at Tifton, Ga.; Frank B. Herbert, horticulturist, who is well known to users of spray materials in the state; Merrill L. Adams, agricultural engineer; Dr. Rene Blondeau, plant physiologist, and Dr. E. W. Bodine, plant pathologist, who has been curing plant diseases at the

Colorado agricultural experiment station, at Fort Collins, for several years. As trained men and women become available the staff will be increased to about fifty. In addition, there will be a crew of men doing field work, testing, under field conditions, the information developed in the laboratory. The laboratory is open to visitors every day of the

week and members of the staff are available for consultation at all times. W. B. B.

OREGON FALL MEETING.

[Concluded from page 10.]

answer to this. Regarding the labor situation, he said the wage scale is going to stay up, because we are competing on a tight labor market, even though we may have a slight recession next year. Freight cars will be scarce this fall, and he urged shippers to cooperate with their freight agents, to order cars only as needed and to load and unload promptly. He covered the quarantine situation thoroughly, and spoke briefly on social security for the nursery employees and the A. A. N. public relations program.

The following officers were elected for the Oregon chapter of the A. A. N. for the coming year: Max Horand, Portland, president; F. A. Doerfler, Salem, vice-president, and E. Dering, Scappoose, secretary-treasurer. Four delegates to the Boston convention of the A. A. N., to be held in 1947, will be chosen at a later date.

B. DIERS, of Ivywild Floral & Nursery Co., has purchased the Frank Kupeske's Floral & Nursery Co., Colorado Springs, Colo.

HOMER A. THORNTON, landscape architect, will operate the Thornton Nurseries, formerly known as the Freeland Nurseries, at Conneaut Lake, Pa.

MR. AND MRS. RICHARD BARLOW have purchased two lots on the southeast corner of Fourth and G streets, Davis, Cal., where they plan to establish the Barlow Nursery & Flower Shop.

LARRY EGGERS, owner of Mill Valley Nursery, San Rafael, Cal., has announced that construction has started on a new nursery, fronting on Drake boulevard and Wolfe grade. The nursery will have two buildings.

RUDY SMITHERS, Santa Maria, Cal., has bought out his partner, Jack Turner, in the Broadway Nursery and is now sole owner of the business. Mr. Smithers is planning some alterations and new buildings for the nursery grounds.

SINCE V-J day the number of World War II veterans returning to farms has exceeded 1,000,000. The number of veterans working in agriculture is estimated to total about two-thirds as many men as had left farm work for the armed services during the war.

PORTLAND WHOLESALE NURSERY CO.

306 S. E. 12th AVENUE Avery H. Steinmetz PORTLAND, OREGON

Quality Stock

CONIFERS AND BROAD-LEAVED
EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Very sorry, no catalog
this fall.

We plan, however, to
send out occasional lists
during the fall and winter
covering stock still avail-
able.

Write for our Catalog

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees

Grown right and packed right.
Combination carloads to Eastern
distributing points will save you
on freight.

MILTON NURSERY CO.

MILTON - Since 1878 - OREGON

Oregon and Washington-Grown Apple
and Pear Seedlings, Angers Quince
Rooted Cuttings.

Chinese Elm Seedlings and Trans-
planted Specimen Trees.

Our Sales have been Heavy, but we
have other Items in Surplus.

Send us Your Want List. Please Use
Your Letterhead.

Combination Carloads to Eastern distrib-
uting points at minimum freight cost.

DOTY & DOERNER, Inc.

6691 S. W. Capitol Highway

Portland 1, Oregon

Wholesale Growers
of
General Nursery Stocks



SHERWOOD NURSERY CO.

EVERGREENS - Propagators & Growers
141 S. E. 65th Ave., PORTLAND 16, ORE.

1 carload specimen Dwarf Boxwood
18 and 24 ins.

Tree Hedge Box, 24 to 30 ins. and
smaller.

100 Parneyl Cotoneasters

150 English Yew, 4 to 6 ft.

150 Native Azaleas

100 Euonymus Japonica

400 Named varieties of Rhododendrons

300 Nandinas

300 Green Aucubas

Plenty of fine Camellias and other fine
shrubs.

The above listed are all landscape size.

F. A. DOERFLER & SONS

Salem, Ore.

AS ALWAYS—
OREGON'S BEST SOURCE
of GOOD ROSES

Limited crops reserved for
established customers.

PETERSON & DERING

Wholesale Rose Growers
Scappoose, Oregon

OBITUARY

J. B. Baker, Sr.

J. B. Baker, Sr., president of Baker Bros. Nursery, Fort Worth, Tex., who died September 18 from a heart ailment, was instrumental in introducing several new shrubs and evergreens and in adding to the knowledge of suitable plants for the southwest. With his older brother, William, who died in 1899, he established Baker Bros. Nursery at Fort Worth in 1884. The Fort Worth nursery now has between 200 and 250 acres of nursery stock, and the company also has nurseries at Midland and Lubbock, Tex., and Albuquerque, N. M., doing a general wholesale, retail and contracting business. His two sons, E. L. Baker and J. B. Baker, Jr., have been associated with the business in recent years.

J. B. Baker, Sr., was born in England eighty-three years ago and came to this country with his parents in 1870, settling at Brenham, Tex. After graduating from Sam Houston Teachers' College, at Huntsville, Tex., he taught school for three years in southern Texas before moving to Fort Worth, where Baker Bros. Nursery was established. The business was incorporated in 1907, and in 1922 Mr. Baker bought out all stockholders, but continued the corporation.

Specializing in the growth of ornamentals, especially evergreens, Mr. Baker was one of the first to demonstrate the many varieties of evergreens which can be grown successfully in the southwest. An oriental arborvitae variety which he developed, *Thuja orientalis Bakeri*, has proved to be especially suited to southwestern conditions.

Mr. Baker served as president of the Southwestern Nurserymen's Association and devoted more than fifty years to the service of the First Methodist church of Fort Worth, as a member of the official board, director of the choir and superintendent of the Sunday school.

Richard E. Henderson.

Richard E. Henderson, 39, president of the Henderson & Herndon Tree Co., Inc., Beverly, Mass., died September 22 of a heart attack in a hospital there.

A native of Beverly, Mr. Henderson was graduated from Lake Forest Academy, Lake Forest, Ill., and Cornell University. He was a member of the American Association of Nurserymen and the Massachusetts Arborist Association.

Surviving are his wife; a daughter,

WANT ADS

Help and Situation Wanted and For Sale advertisements.

Display: \$2.50 per inch, each insertion. Lines: 20¢ line; minimum order \$1.00

HELP WANTED

Working foreman, for a midsouthern nursery and landscape firm, one who is familiar with landscape materials, can handle small crew and do planting, pruning, lawn and general landscape work from small landscape designs. Permanent and steady year-around work. Please give age, experience, references, family and minimum pay required.

Address Box 462, care of American Nurseryman.

HELP WANTED

Propagator or young married man interested in learning to propagate stock. We can supply house to live in and want someone interested in something permanent.

FAIRVIEW
EVERGREEN NURSERIES,
Fairview, Pa.

HELP WANTED—Middle aged man, 30 to 50, to take charge of our mail-order nursery division.

This job is a good one for the right person and will pay a good salary.

Man must be familiar with ordinary mail-order nursery items, must be able to recognize good quality when shipments arrive, see that they are properly labeled, properly stored and when shipping season opens, supervise labeling, trimming, wrapping, packing and getting them on the trucks to the post office. During the summer months, we grow some hardy perennials, which would be under his supervision.

CONDON BROS. SEEDSMEN
Rockford, Illinois

HELP WANTED—We have an opening for one or two ambitious, unmarried young men who have an earnest desire to learn to propagate the finer types of nursery stock. We will employ as apprentices for one or two years with a possible offer of steady employment following. This year we are celebrating a quarter of a century of propagation at our present location. When writing, please give us sufficient information about yourself, education, past experience and intentions. JOHN VERMEULEN & SON, INC., Westbury, L. I., N. Y., Westbury 328.

Gail, and two brothers, William P. and Ernest B. Henderson, both of Beverly.

Samuel L. Smedley.

Samuel L. Smedley, retired contractor and president of the Delaware county park and recreation board since its establishment in 1932, died September 19 at his farm home near Media, Pa. He was 85.

A native of Delaware county, Mr. Smedley received his education at Westtown Friends School. As a builder, he developed a large part of what is now Bala-Cynwd. In 1912 he retired and devoted a large part of his time to the growing of apples.

As a boy, Mr. Smedley helped his uncle, also named Samuel Smedley, who was an engineer in Fairmount park. He took an interest in park development, and was the moving force behind the establishment of the Dela-

FOR SALE

A REAL BUSINESS OPPORTUNITY

Long-established and well advertised landscape nursery for sale. Just beyond city limits of Denver, Colo. (population about 400,000). A large volume of cash-and-carry business assured, and plenty of landscape calls always. A complete line of landscape nursery stock, 15 acres, shade trees, shrubs, hedging, vines and evergreens, including twelve entirely new varieties of choice grafted pyramidal junipers, Colorado spruces, pines, globe and spreading junipers. Six-room modern brick house, double garage, well equipped office and a large insulated storage cellar, packing and tool house. Equipment includes power tree digger, power sprayer, tractor, trucks, three evergreen movers and tools. Irrigation wells, pumps, overhead lines and ditch-water rights. Must sell because of illness. Box 463, care of American Nurseryman.

FOR SALE

Due to the heavy demand on our time as florists, we will sell separately our nursery business. We are located in a growing town of 10,000. Plenty of finished stock, no competition. Large storage barn and tools included. \$5,000.00 needed.

RUESS & SNYDER
Defiance, Ohio

FOR SALE

Myers Power Spray outfit, skid-mounted, 200-gal. tank; 6-horsepower engine. In good running condition. Write: STEWART H. WILLSON, 1087 Enfield Street, Thompsonville, Conn.

FOR SALE—3-acre mail-order nursery, in good location; evergreens, shrubbery, vines, fruit trees, gladi, dahlias, cannas and other items; retiring. HOME NURSERY, Liberal, Mo.

ware county board. A park on Baltimore pike, about two miles from Media, is named for him. He is survived by one son and one daughter.

A. R. P.

LOUISVILLE ENTERTAINMENT

President Carl Ray entertained the Louisville Retail Nurserymen's Association at its monthly meeting September 11, with a cocktail party at his home, at Anchorage, Ky., and a dinner party at the Evergreen Inn. A short business meeting was held, and the evening was thoroughly enjoyed by all twenty-eight members present.

FRUIT TREES

APPLE, 1 and 2-yr.

Ornamental Shrubs.

Native tree seedlings.

Lining-out stock.

Write for prices.

SANDERS NURSERY

Rte. No. 5
McMinnville, Tenn.

Pathology in Forest Practice

By Dow Vawter Baxter

While written primarily for the student of forestry and for the timber grower, this book is a valuable addition to the nurserymen's reference library, particularly for the data of direct value in the two lengthy chapters on forest nursery practices and on the care of shade trees, as well as for the complete data on tree diseases contained in this up-to-date volume (published 1943). 618 pages, over 200 illustrations.

Price: \$5.50

For sale by

AMERICAN NURSERYMAN

343 S. Dearborn St., Chicago 4, Ill.

MYROBALAN SEED

LOVELL PEACH PITTS

Nation's Leading Source

Write today for quotations.


California
NURSERY COMPANY
Niles, California

Send for Our Seed List.

A. B. C.

"Supreme" Quality

SEEDS — PLANTS — BULBS

and

Growers' Accessories

AMERICAN BULB CO.

1335 W. Randolph St. CHICAGO 7
31 W. 27th St. NEW YORK 1

NEW YORK NURSERYMEN ENJOY SUMMER OUTING.

Business was thrown to the winds September 17, when over 100 western New York nurserymen gathered for a day of fun and good-fellowship at the Newark Country Club.

John Kelly, of the Western New York Nurserymen's Association, and Al Synaesaal, secretary, had planned a full schedule of activities. The day started at 10:30 a. m. at the packing house of C. W. Stuart & Co., with a demonstration of the new Cyclone wrapping machine—a 20th-century time-saving device. This was followed by an interesting sight-seeing tour of the Jackson & Perkins Co. rose gardens, farms and packing plants.

Noon found this hungry but happy crowd assembled at the beautiful Newark Country Club for a generous and tasty lunch. The usual business session was dispensed with, except for a word of welcome by President John Kelly and the introduction of members of the staffs from the New York state agricultural experiment station, the department of agriculture and Cornell University.

During the afternoon many enjoyed eighteen holes of golf, bowling on the green, a softball game and poker. Not to be overlooked was the "gab fest" which occurs when old friends meet. Promptly at 6:30 p. m. a delicious turkey dinner with all the trimmings was served. Stag banquet fashion, the members sang and sang and sang. Groups from various firms and sections were called upon to give renditions of their favorite ballads. Charlie Schumacher, of House Beautiful magazine, sang "Oh Promise Me Some Advertising This Year," in the manner of an opera star.

The day's activities closed with a demonstration of 20th-century magic by E. O. Bingham, local magician.

This successful day of good fellowship and fun paves the way toward a most successful winter business meeting to be held at Rochester in January, 1947. Carlton Hoste.

RETURNING after three years in the armed forces, W. J. Jung will assist in the operation of the J. W. Jung Seed Co., Randolph, Wis.

HARRY HOBBS and his family enjoyed a summer trip of 3,500 miles over the eastern part of the country, from North Carolina to Vermont. Tom Hobbs has been released from military service and is back with C. M. Hobbs & Sons, Inc., Bridgeport, Ind. Ollie Hobbs has been busy with the divining rod again, hunting oil.

PEACH PITTS

1946 Lovell

	Per bu.
1 to 4 bushels.....	\$3.00
5 to 24 bushels.....	2.85
25 to 99 bushels.....	2.75
100 bushels or over.....	2.50

F.O.B. Cleveland, Tenn., or some point yet to be selected in Texas, Arkansas, Michigan and New York state. In good bags. Terms cash. Order now. Pits are scarce.

Also 1-yr. Apple Graft Whips, 2-yr. Apple, 1-yr. Peach, June-budded Peach, Plum and Apricot. 5-N-1 Apple, Pear, Peach. Combination Fruit Tree, Plum-Peach-Apricot.

Send want list for quotations.

5000 Stuart budded or grafted Pecans, 2 to 3 ft., 3 to 4 ft., 4 to 5 ft. and 5 to 6 ft. 10,000 Stuart seedling Pecans, not budded or grafted; stocky, smooth trees.

Write for prices. State grades and quantities wanted.

GROW CONTRACTS

June-budded Peach, Plum, Apricot and Nectarines, delivery 1947. One-year Peach, Plum, Apricot and Nectarines, delivery 1948. Peach Seed planting time is here. Can give the most advantageous contract prices before pits are planted.

TENNESSEE NURSERY CO.

Box 1,

Cleveland, Tenn.

GLADIOLUS BULBS

By the 100, 1000 or Million.

We grow the following:

Aladdin	Marg. Fulton
Algonquin	Marg. Beaton
Beacon	Picardy
Gardenia	Snow Princess
Bit o' Heaven	Vagabond Prince
Blaze	

We also grow many of the newer varieties, such as White Gold, Leading Lady, Buckeye Bronze and Golden Teton.

Catalog ready in December. A postal card will put your name on our mailing list.

CUTLER & VENNARD NURSERY

Box 394

Sioux City, Ia.

SEED CONES

LONGLEAF PINE

\$2.50 per bushel.

These cones gathered just before cones open. Buyer hangs cones under warm metal roof; seeds fall out in few days. Plant 1/4 inch deep. By Christmas the seeds should, if sound, produce a many-needled green plant about 2 inches high.

STOVALL NURSERY

Looksville, Miss.

SEEDS

Collectors of Tree, Shrub and Wild Flower Seeds

Crude Drugs and Ornamentals

E. C. MORAN Stanford, Mont.

CLASSIFIED ADS

Five lines, \$1.00,
each additional line 20 cents,
per insertion.

BERRY PLANTS

CULTIVATED BLUEBERRY PLANTS—New Jersey-grown. Home of cultivated blueberries. Were originated in this state. More blueberries grown in this state than the entire U. S. Ship now until Nov. 15. One-yr. varieties: Rubel, Jersey, Rancocas, Cabot, \$20.00 per 100; \$190.00 per 1000. One-yr. Dixi, Atlantic, Pioneer, Pemberton, Weymouth. Prices quoted. 2-yr. 10 to 12-in. height, \$50.00 per 100. 2-yr. 12 to 15 in., \$60.00 per 100. Varieties, 2-yr., Jersey, Burlington, Rancocas. Varieties, 3-yr., \$30.00 per 100. Concord, Jersey, Burlington, Rubel, Rancocas. Many inquiries and orders being received. Great demand. Shipping all over.

WARREN SHINN, Root Specialist,
Woodbury, N. J.

CERTIFIED RASPBERRY PLANTS

	Per 100	Per 1000
Indian Summer, No. 1.....	\$6.00	\$50.00
Taylor, No. 1.....	6.00	50.00
Chief, No. 1.....	5.00	40.00
Chief, No. 2.....	3.75	27.50
Sunrise, No. 1.....	5.00	40.00
Sunrise, No. 2.....	3.75	27.50

No check for boxing.

RAKER'S NURSERIES, Hooick Falls, N. Y.

POT-GROWN STRAWBERRY PLANTS, June bearers, \$8.00 per 100; \$75.00 per 1000. Varieties: Blakemore, Fairfax, Chesapeake, Dorsett, Starbright and Big Joe. Fall bearers, \$9.00 per 100; \$85.00 per 1000. Gem and Mastodon. Plant now for good crop next spring. Pays well. Money in Strawberries.

WARREN SHINN, Woodbury, N. J.

Stocky, well rooted **STRAWBERRY PLANTS**. Aroma, Blakemore, Klondike, Dunlap, Premier, \$6.00 per 1000. Mastodon Everbearing, \$7.00 per 1000. F.O.B. McMinnville, Tenn. **SAM PACK & SONS, R.F.D. 5, Smithville, Tenn.**

Berry Plants, Garden Roots, Herbs. Send for list of above for all planting.

WARREN SHINN, Woodbury, N. J.

BULBS

WHOLESALE PRICES OF CANNA BULBS. \$6.00 per 100, \$50.00 per 1000.

Hungaria, tall, pink; Wyoming, yellow; King Humbert, red; Yellow King Humbert, yellow; President, red; Pennsylvania, orange and red.

BENTON COUNTY NURSERY CO.
Rogers, Ark.

DOUBLE TIGER LILY BULBS

	Per 100	Per 1000
3 to 4-in. circumference.....	\$ 6.50	
4 to 5-in. circumference.....	8.50	
5 to 6-in. circumference.....	10.00	
6 to 7-in. circumference.....	15.00	

THE EVERGREEN NURSERIES, Lowell, Ind.

EVERGREENS**LINING-OUT STOCK**

Immediate shipment.

	Per 100	Per 1000
Abella grand., 10 to 12 ft., X.....	\$10.00	\$90.00
Irish Juniper, 4 to 6 ft., X.....	12.00	
Irish Juniper, 6 to 8 ft., X.....	15.00	
Irish Juniper, 10 to 12 ft., X.....	30.00	
Hemlock, 6 to 8 ft., X.....	15.00	
Hemlock, 8 to 10 ft., X.....	25.00	
Retinospora plumosa, 4 to 6 ft., X.....	15.00	
Retinospora plumosa, rooted cuttings.....	7.00	
Retinospora squarrosa veitchi, rooted cuttings.....	7.00	
Retinospora squarrosa veitchi, 4 to 6 ft., X.....	15.00	
Globe Arborvitae, rooted cuttings.....	8.00	75.00
Pyramidalis Arborvitae, rooted cuttings.....	8.00	75.00
Retinospora obtusa crippei, rooted cuttings.....	8.00	
Taxus cuspidata, rooted cuttings.....	10.00	90.00
Taxus baccata repandens, rooted cuttings.....	10.00	90.00

Inquire about Taxus capitata.

ESHAM'S NURSERIES
Frankford, Del.

THREE TIMES TRANSPLANTED STOCK

	Each
29 Pfitzer Juniper, Staked Specimens, 2 to 3 ft.....	\$3.50
15 Woodward Arborvitae, 2 ft.....	3.00
7 Virg. Elegansissima, 2 to 3 ft.....	3.00
14 Dundee Juniper, 3 to 4 ft.....	3.50
15 Hicks Yew, 2 ft.....	3.00
15 Mugo Pine, 1 1/2 ft.....	2.25

A. H. UREN, Iron River, Mich.

EVERGREENS
Offered in car or truckloads.
CONIFEROUS

	Each
Arborvitae, American Pyramid., 3 to 4 ft.....	\$3.00
4 to 5 ft.....	4.00
Arborvitae, Globe, 18 to 21 ins.....	2.75
Arborvitae, Globe, 21 to 24 ins.....	3.50
Arborvitae, Berckman's Golden, 18 to 24 ins.....	2.25
24 to 30 ins.....	2.00
30 to 36 ins.....	3.75
Hemlock, Canadian, 2 to 3 ft.....	2.00
Hemlock, Canadian, 3 to 4 ft.....	3.00
Hemlock, Canadian, 4 to 5 ft.....	4.00
Juniper, Irish, 4 to 5 ft.....	3.00
Juniper, Irish, 5 to 6 ft.....	3.75
Juniper, Meyer's Blue, 18 to 24 ins.....	2.00
Juniper, Meyer's Blue, 24 to 30 ins.....	2.75
Juniper, Meyer's Blue, 30 to 36 ins.....	3.50
Juniper, Pfitzer, 30 to 36 ins.....	3.00
Juniper, Pfitzer, 36 to 42 ins.....	3.75
Juniper, Savin, 30 to 36 ins.....	2.50
Juniper, Savin, 36 to 42 ins.....	3.25
Pine, Austrian, 3 to 4 ft.....	2.50
Pine, Austrian, 4 to 5 ft.....	3.25
Pine, Mugo, 18 to 21 ins.....	2.00
Pine, Mugo, 21 to 24 ins.....	2.50
Pine, Mugo, 24 to 30 ins.....	3.00
Pine, Scotch, 4 to 5 ft.....	2.75
Pine, Scotch, 5 to 6 ft.....	3.50
Pine, White, 4 to 5 ft.....	3.00
Pine, White, 5 to 6 ft.....	3.75
Pine, White, 6 to 8 ft.....	4.50

BROAD-LEAVES

Elaeagnus fruticuli, 2 to 3 ft.....	1.75
Elaeagnus fruticuli, 3 to 4 ft.....	2.50
Mahonia aquifolia, 24 to 30 ins.....	2.00
Mahonia aquifolia, 30 to 36 ins.....	2.50
Nandina domestica, 18 to 24 ins.....	1.75
Nandina domestica, 24 to 30 ins.....	2.25
Pyracantha lalandi, 2 to 3 ft.....	1.75
Pyracantha lalandi, 3 to 4 ft.....	2.25
Pyracantha rogersi, 2 to 3 ft.....	2.00
Pyracantha rogersi, 3 to 4 ft.....	2.75
Viburnum rhytidophyllum, 2 to 3 ft.....	2.00
Viburnum rhytidophyllum, 3 to 4 ft.....	2.75
Viburnum rhytidophyllum, 4 to 5 ft.....	3.75

WAYNESBORO NURSERIES,
Waynesboro, Va.

FOR IMMEDIATE OR SPRING DELIVERY
Select Clean Stock

Japanese Spreading Yew.

12 to 15 ins., B&B.....	\$2.00
15 to 18 ins., B&B.....	2.50
24 to 30 ins., B&B.....	3.50

Clipped Yews, Globe..... 3.00

15 to 18 ins., B&B..... 3.00

18 to 24 ins., B&B..... 3.75

Clipped Yews, Pyramid..... 3.00

24 to 30 ins., B&B..... 3.50

30 to 36 ins., B&B..... 4.50

Norway Spruce..... 1.00

3 to 4 ft., B&B..... 1.50

4 to 5 ft., B&B..... 1.50

Also Pyramid Arborvitae, Mugo Pine and Colorado Blue Spruce.

Ask For Prices

NIAGARA HORTICULTURAL PRODUCTS
St. Catharines, Ont., Can.

SURPLUS EVERGREENS, B&B.
Available for immediate delivery.

Col. Blue Spruce, 75 3 to 3 1/2 ft.....	50 3 1/2 to 4 ft.
White Pine, 75 4 1/2 to 5 ft.....	50 4 1/2 to 5 ft.
50 5 to 6 ft.....	50 5 to 6 ft.
Austrian Pine, 25 4 1/2 to 5 ft.....	50 3 1/2 to 4 ft.
Norway Pine, 50 4 1/2 to 5 ft.....	

Make quotations or inquire for price list advising your needs.

HIGHLAND PARK NURSERIES
P. O. Box 433, Sterling, Ill.

Can furnish unrooted cuttings of Taxus canadensis, Brevifolia; Pfitzer, Savin and Canadensis Juniper; Filcata (Gigantea) and Golden Arborvitae, and Retinospora Plumosa Aurea. \$35.00 per 1000. \$325.00 for 10,000. Samples, \$5.00. Prices on rooted cuttings for spring 1947 on request.

WELLS M. DODDS, North Rose, N. Y.

EVERGREEN LINERS
10,000 Andorra Junipers, 8 to 10-in. transplants in open field rows, \$15.00 per 100; \$125.00 per 1000; free samples. Come and see them. Order from this ad. Free packing. Give shipping date.

WELLS M. DODDS, North Rose, N. Y.

WILBERT'S NURSERIES
St. Marys, W. Va.

SPECIMEN TAXUS
See my Ad in this issue for some beautiful specimen Taxus. Also write or call about other specimen Magnolias, etc. Westbury 228. **JOHN VERNEULEN, Westbury, L. I., N. Y.**

Norway Spruce, 2 to 3 ft., \$1.25; 3 to 4 ft., \$1.50; and 4 to 5 ft., \$1.75. B & B. F.O.B. on your truck, or you may select and dig your own at reasonable prices. Cut trees after December 10.

CARL CARTER, Roseville, O.

2000 COLORADO BLUE SPRUCE
for lining out, all good color,
12 ins. to 18 ins., 18 ins. to 30 ins.
Prices on request.

ELFIE E. THE FLORIST
Colorado Springs, Colo.

50 specimen Col. Blue Spruce, in sizes from 8 to 15 ft. Good color, ranging in price from \$40.00 to \$75.00 each, in the ground. You dig them. Clay loam, good for balling.

WELLS M. DODDS, North Rose, N. Y.

2500 EVERGREENS, 2 1/2 to 7 ft. Includes: American and Pyramid Arborvitae, Retinospora, Pfitzer, Andorra Juniper and Yew. **GLOVER'S NURSERY, Hughesville, Md.**

GRASS SODS

We again solicit, after four years' absence, your GRASS SODDING contracts. No job too large or too small for us to handle.

ABBOTT'S GARDEN SERVICE
Box 208, Flushing, N. Y.

HARDY PLANTS

DEPENDABLE NEW HARDY PLANTS

	Per doz.	Per 100
CARNATION LUCIA, deep salmon-pink, pot plants.....	\$3.50	\$20.00
DIANTHUS SILVERMINE, double white, pot plants.....	3.00	18.00
ASTER BEECHWOOD CHALLENGER, brilliant red, field-grown plants.....	3.00	18.00
ASTER BLUE LAGOON, bright medium blue, field-grown plants.....	3.50	20.00
ASTER PALMYRA, pure pink, field-grown plants.....	3.00	18.00
VIOLET ROYAL ROBE, large deep violet, pot plants.....	3.00	18.00

THE DELPHINIUM OF TOMORROW
LYONDEL GIANT HYBRIDS—A new strain especially selected for its large-sized flowers and wide range of colors. Double, semidoubles, singles, mixed. Extremely hardy. Field-grown plants, \$4.00 per doz., \$25.00 per 100.

Fall delivery. Packing at cost.

CORLISS BROS., INC., NURSERIES
10 Reynard St., Gloucester, Mass.

PEONIES
3 to 5-eye strong divisions.

	Per 10	Per 100	Per 1000
Alexandre Dumas.....	3.00	\$27.00	\$250.00
Candidissima.....	4.00	35.00	300.00
Chestnut Gowdy.....	10.00	85.00	600.00
Delicatissima (Fl. Tr.).....	3.00	27.00	250.00
Edulis Superba.....	3.00	27.00	250.00
Festiva Maxima.....	3.00	27.00	250.00
Floral Treasure.....	3.00	27.00	250.00
Fragrans.....	3.00	27.00	250.00
Queen Victoria.....	3.00	27.00	250.00

Peonies according to color:

White and Pink.....	3.00	25.00	230.00
Red.....	3.50	30.00	250.00

PHIL LUTZ PEONY FARMS
Boonville, Ind.

CHEERIO.
An outstanding new Oriental Poppy. Beautiful bluish-pink with red spots at the base. Strong field-grown plants.

\$3.50 per 10; \$30.00 per 100.
250 or more at \$25.00 per 100.
Many other varieties of Oriental Poppies available. Send for complete list.

CARROLL GARDENS,
Westminster, Md.

PEONIES
3 to 5-eye div., \$35.00 per 100

Alexandre Dumas, rose.
Festiva Maxima, white.
Louis Vanhoutte, cherry-red.
L'Eclatante, crimson.
Modele de Perfection, pink.
About 500 each variety available.

EASTERN SHORE NURSERIES, INC.
Easton, Maryland.

HARDY FIELD GROWN MUMS
Immediate Shipment—\$25.00 per 100

300 Chippewa.....	200 Lavender Lady.
2000 Red Gold.....	500 Polar Ice.
1000 Avalanche.....	200 My Lady.
1000 Autumn Greetings.....	200 Mandalay.
2000 Butterball.....	500 Algonquin.
500 Robert Brydon.....	500 Red Velvet.

THOMSEN NURSERY
4108 Nawadaha Blvd., Minneapolis 6, Minn.

HERBS
Thyme, Spearmint, Apple Mint, Sage, Common Lavender, Twinkle's Purple Lavender, 1-yr., 25c; 2-yr., 50c; Cultivated Chives, \$1.50 doz.; \$8.00 per 100.

WARREN SHINN, Woodbury, N. J.

HARDY FERNS
\$6.00 per 100

Ostrich, Clayton, Lady and Maidenhair.

STRAND NURSERY CO.
Taylors Falls, Minn.

DELPHINIUM, Improved Gold Medal Hybrids, 2-yr.-old, field-grown, long fibrous roots, \$7.50 per 100; \$4.00 per 50. Heavy landscape clumps, 16c ea.

SWEDBURG NURSERY, Battle Lake, Minn.

VINCA MINOR (Myrtle), 6 to 9 ins., field-grown, ready for landscaping, \$10.00 per 100 clumps. State and federal inspection.

Sylvania Nursery & Peat Co.,
New Galilee, Pa.

BLEEDING HEARTS
DIENTHRA SPECTABILIS, 3 to 5 eyes, \$40.00 per 100. DIENTHRA EXIMIA, 3 to 5 eyes, \$20.00 per 100. Cash with order.

J. HENDRIKS, Grower, Portage, Mich.

PRIMULA POLYANTHA. Western Rain-bow Giants. Seedlings sold out until November. 1 X plants, \$12.50 per 100, will bloom heavily next spring. Seeds, 75¢ packet, \$1. 1/2 oz., \$2. Also seeds, pulverulent, denticulate, norindae, auricula. Trade pkt., \$1. **WESTERN HORTICULTURAL SUPPLY**
3629 S. E. 67th Ave., Portland 6, Ore.

Tritomas, Phlox, Carnation and many other hardy perennials. Write for Surplus List. **SUNBEAM FARM**
2429 Clague Road, Rocky River 16, O.

ROOTS

For Sale—Northern-grown Mary Washington Asparagus. October, November or April delivery. Strong, healthy roots and crowns. Shipped when dug. Packed 25 per bunch in peat. Order now. 1-yr.-old, \$5.00 per 250; \$8.00 per 500; \$14.00 per 1000. 2-yr.-old, \$6.00 per 250; \$10.00 per 500; \$18.00 per 1000.

ARTHUR E. GUSTAFSON,
Pine City, Minn.

GIANT ASPARAGUS ROOTS.
3 yrs. old. Great for fall trade. Roots 1 1/2 to 2 ft. long, immense, finest ever. Tied 50 to a bundle. \$4.50 per 100; \$25.00 per 1000. Also Rhubarb and Horse-radish roots.
WARREN SHINN, Woodbury, N. J.

PERENNIAL MULTIPLIER ONIONS
Top Sets
10 lbs., \$2.50; 100 lbs., \$20.00
THE EVERGREEN NURSERIES
Lowell, Indiana

SEEDS

V. and R. DELPHINIUM SEEDS.
New crop, Pacific Giant strain.
Guaranteed good mixed seeds.
Order early.
\$5.00 per oz.

SEBASTIAN NURSERY CO.
Sebastopol, Cal.

PEACH PITS. Southern-collected, high germination \$3.00 bu.; Peach seedlings for budding or grafting \$25.00 per 1000, \$3.00 per 100. Boxwoods, Shrubs, Fruit trees. Cash with order. **RIVERDALE NURSERIES,** Riverdale, Ga.

PEACH PITS—New Crop Lowell.
1 to 5 bu., \$3.00 per bu. 5 to 25 bu., \$2.35; 25 to 100 bu., \$2.75; 100 bu. up, \$2.50.
WAYNESBORO NURSERIES, Waynesboro, Va.

SHRUBS and TREES

TURNER BROTHERS NURSERY

SURPLUS LIST

DOGWOODS and SHADE TREES

All the following trees are well shaped specimens and have not been crowded in the rows.

CORNUS FLORIDA

	Per 10	Per 100
60 5 to 6 ft. B&B.	\$35.00	\$300.00
250 6 to 8 ft. B&B.	45.00	400.00
120 8 to 10 ft. B&B.	65.00	600.00
20 10 to 12 ft. B&B.	85.00	800.00

CORNUS RUBRA

	Per 10	Per 100
20 5 to 6 ft. B&B.	42.50	400.00
250 6 to 8 ft. B&B.	45.00	550.00
120 8 to 10 ft. B&B.	90.00	850.00

ACER DASYCARPUM

	Per 10	Per 100
25 12 to 15 2 to 2 1/2	27.50	250.00
25 15 to 18 2 1/2 to 3	35.00	325.00
25 15 to 18 3 to 3 1/2	45.00	425.00
10 15 to 18 3 1/2 to 4	60.00	
5 15 to 18 4 to 5	75.00	

ACER DAS. WIERI

	Per 10	Per 100
5 15 to 18 3 1/2 to 4	75.00	
25 15 to 18 4 to 5	90.00	

ACER PLATANOIDES

	Per 10	Per 100
60 12 to 15 2 to 2 1/2	48.00	450.00
75 12 to 15 2 1/2 to 3	58.00	550.00
50 15 to 18 3 to 3 1/2	75.00	725.00
25 15 to 18 3 1/2 to 4	90.00	875.00
10 15 to 18 4 to 5	120.00	

ACER PLAT. SCHWEDLERI

	Per 10	Per 100
25 12 to 15 2 to 2 1/2	70.00	675.00
20 12 to 15 2 1/2 to 3	85.00	825.00
20 15 to 18 3 to 3 1/2	95.00	

ACER RUBRUM

	Per 10	Per 100
10 12 to 15 2 to 2 1/2	50.00	
25 15 to 18 2 1/2 to 3	70.00	
60 15 to 18 3 to 3 1/2	85.00	800.00
60 15 to 18 3 1/2 to 4	100.00	950.00
25 15 to 18 4 to 5	120.00	

QUERCUS PALUSTRIS

	Per 10	Per 100
15 12 to 15 3 to 4	85.00	
25 12 to 15 4 to 5	130.00	

F. O. NURSERY

TURNER BROTHERS NURSERY

Monmouth & Parker Roads,

West Long Branch, N. Y.

PRIVET, CALIFORNIA—1-year

Heavily Branched, Strong Stock.

	Per 1000
12 to 18 ins.	\$40.00
18 to 24 ins.	50.00
24 to 30 ins.	60.00

Write for quotations on quantities. No shipping.

EVERGREENS ACRES

U. S. Route 13, McDonough, Del.

P. O. Middletown, Del.

ALL SEEDLINGS

	Per 1000
Soft Silver Maple, 8 to 16 ins.	\$20.00
Ash-leaved Maple, 18 to 24 ins.	20.00
Am. White Elm, 8 to 14 ins.	15.00
Chinese Elm, 4 to 8 ins.	15.00
White Ash, 12 to 18 ins.	15.00
Meadow Rose, 4 to 10 ins.	15.00
Rugosa Rose, 4 to 8 ins.	15.00
Multiflora Rose, thornless, 4 to 10 ins.	15.00
Dwarf Pea Shrub, 1-yr.	15.00
Canoe or Paper Birch, 18 to 24 ins.	60.00
Asparagus, Mary Washington, 1-yr.	15.00
Sweet William, mixed colors, 1-yr.	15.00

Have a few Evergreen liners and fresh seeds. List on request.

C. WILSON'S NURSERY

Pembine, Wis.

1500 Paul's Scarlet Climber Rose, 2-yr., No. 1, budded on Multiflora Japonica rootstock, \$5.00 per 10; \$45.00 per 100.

25,000 Rosa Multiflora Japonica seedlings, 9-in. cuttings, well rooted, well branched 3/16 to 1/2 in., \$4.00 per 100; \$25.00 per 1000.

100,000 Multiflora Japonica, thornless roses, 9-in. cuttings, \$3.00 per 1000.

2000 Spiraea Trichocarpa (Korean), 2-yr. No. 1, 2 to 3 ft., \$25.00 per 100, \$200.00 per 1000.

2000 French Pussy Willow (Salix Caprea), 2-yr., No. 1, 2 to 3 ft., well branched, well rooted, \$15.00 per 100.

FINGER LAKES NURSERIES

404 Washington St. Geneva, N. Y.

REMOVAL SALE

	Per 100
Azalea Vaseyi, 3 to 4 ft.	\$275.00
Azalea Vaseyi, 2 to 3 ft.	225.00
Azalea Vaseyi, 1 1/2 to 2 ft.	175.00
Azalea Kaempferi, 2 to 3 ft.	250.00
Enkianthus Camp, 5 to 7 ft.	350.00
White Pine, 2 to 3 ft.	200.00
Viburnum Carleii, 2 to 3 ft.	125.00

BRIMFIELD GARDENS NURSERY

245 Brimfield Rd., Wethersfield, Conn.

PRIVET AMUR RIVER NORTH

1-yr. cuttings.

Now that count is in we revise our previous listing.

	Per 1000
6 to 12 ins.	\$25.00
12 to 18 ins., 2 canes and up.	35.00
1000, 18 to 24 ins., 3 canes and up.	50.00

Cash, free packing

NORTH RIDGE NURSERY, Elyria, O.

BERBERIS DARWINI. Evergreen. Hardy north to New Jersey and to British Columbia on west coast. New crop seeds. D. B. Trade packet, 50c; 1/2 lb., \$1.50; pound, \$4.50.

WESTERN HORTICULTURAL SUPPLY

3629 S. E. 67th Ave., Portland 6, Ore.

50 SECKEL PEARS, 1-yr., 3 1/2 to 4 1/2 ft.

200 Bartlett Pears, 1-yr., 1/2 to 4 1/2 ft.

Lots of 10 ins.

DRAKE'S NURSERIES

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MISCELLANEOUS

Wholesale prices for 1-year, No. 1 GRAPES

	Per 100	Per 1000
Concord	\$10.00	\$90.00
Predonia	11.00	100.00
Moore's Early	11.00	100.00
Campbell's Early	11.00	100.00
Delaware	12.00	110.00
Niagara	11.00	100.00

CALIFORNIA PEACH SEEDS

California Lovell Peach Pits from 1946 crop. Well cared for in drying. In bags of about 80 lbs. Each \$3.00 per bushel. In lots of ten and up, \$2.50 per bushel. F.O.B. Rogers, Ark.

BENTON COUNTY NURSERY CO., INC.

Rogers, Ark.

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CEDAR AND BALSAM ROPING. 7c per ft. You will probably need this item, so why not place your order now. Due to scarcity of experienced labor, can only furnish this under contract, subject to your order at least forward of Oct. Many sales were lost last season by not being able to obtain it. First come, first served. 25 per cent down with order, or 3 per cent discount where full amount accompanies the order. Prices of other greens on request.

WELLS M. DODDS, North Rose, N. Y.

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PROFIT WITH PERF-O-RAIN.

Rain when you want it—low pressure—rectangular strip watered—No overlap—No sprinkler heads or other gadgets—Portable lightweight pipe—Long life. Write for free folder. **W. R. AMES COMPANY OF FLORIDA.** 3905 E. Broadway, Tampa 5, Florida.

or **W. R. AMES COMPANY, 150 Hooper St., San Francisco 7, Calif.**

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	Per 100
Ponderosa Cones, 3 1/2 to 4 1/2 ins.	\$3.00
Hard Cones, 1 1/2 to 2 ins. and over.	2.00
White Pine Cones, 3 to 8 ins.	2.00
Hard or White Cones, 1 1/2 to 6 ins.	1.00

Giant Jeffrey Cones, 8 to 8 1/2 ins., each 15c.

Assorted Cones, \$2.00 per box.

Gum Balls, 1 1/2 ins., all with stems, \$2.50 per bu. Sample box of our cones, \$1.00 postpaid.

MARYLAND NURSERY, Edmonton, Md.

GREEN DYED BAMBOO STAKES.

Special offer.

Fresh, new crop of imported stakes.

Quality excellent, pencil thickness.

Du Pont dye.

Size	Per 1000
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24 ins.	6.40
30 ins.	6.90
36 ins.	8.30
48 ins.	10.75

2000 per bundle.

BEST DOMESTIC CANE STAKES.

All dark green.

Check this list now and send your order.

MEDIUM HEAVY.

1/2 to 3/4 in. (500 to bale).

	Per 1000
2 ft.	\$10.50
2 1/2 ft.	15.50
3 ft.	15.00
3 1/2 ft.	16.00
4 ft.	17.50
5 ft.	22.00
6 ft.	25.00

AMERICAN FLORESTA SUPPLY CO.

1335 W. Randolph St., Chicago 7, Ill.

KNOCK-DOWN FLATS.

Made from a good grade of Southern Yellow Pine, since Cypress is not available.

Standard specifications, inside measurements.

	Per 100
16x12x2 1/2	\$16.25
16x14x3 1/2	20.50
20x14x2 1/2	20.00
20x14x3 1/2	23.00
22 1/2 x 12 x 2 1/2	22.00
22 1/2 x 14 x 3 1/2	25.00

All other sizes quoted on request. Prices F.O.B. Birmingham.

We are manufacturers, not jobbers. Freight to any point is a small item per Flat. Our Flats are the best. Why pay more? Our quality guaranteed. Prompt shipment, any quantity. Attach check to order.

HIGHTOWER BOX & TANK CO.

Birmingham, Ala.

CANE STAKES.

Carefully selected. Uniform quality. Properly cured and dyed dark green.

STANDARD, pencil thickness.

	Per 1000
No. G-32 2 1/2 ft. Bale of 2000	\$13.90
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No. G-34 3 1/2 ft. Bale of 2000	19.45
No. G-35 4 ft. Bale of 2000	23.35

TONKIN STAKES—Bamboo

Dyed Green—Medium Heavy.

	Per 1000
No. G-42 3 1/2 ft. Bale of 500	\$ 7.75
No. G-43 4 ft. Bale of 500	8.70
No. G-44 5 ft. Bale of 500	11.95
No. G-45 6 ft. Bale of 500	13.75
No. G-46 7 ft. Bale of 200	7.70

We cannot break bales.

Quantity discounts, 10 to 24 Bales, 5 per cent.

25 Bales or more, 7 1/2 per cent.

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TRE-TEX Saves any tree from damage by rabbits, mice, gophers, etc. Also effective repellent for fruit tree borer, scab, winterkill. Also used as adhesive in any dust spray. Applied any time of year like varnish and lasts at least one year. Applied to 100 trees in one hour. Unused portion never spoils. Results guaranteed. Prices Postpaid: 1 pound, \$1.00; 10 lbs., \$9.00; 50 lbs., \$45.00; 100 lbs. or over, \$80.00 F.O.B. Noblesville.

Used at Orchardview since 1942. Sold in 30 states in 15 months. Trade Mark patent issued 1946. Rev. E. L. Eckerley, Box 91, Noblesville, Ind.

FINE SCREENED PEAT

Acid pH 4-8. Some Nitrogen.

Our Peat is excellent for Gardenias, Camellias, Azaleas and Hydrangeas, also for mixing with soil for potting, seed flats and mulching. Order early. Packed in 2-bu. bags, 5 to 24 bags, \$1.00 each; 25 to 49 bags, 95c each; 50 to 100 bags, 90c each. Bulk carload, about 60 yards or 600 bags, \$275.00 per car. We ship same day order received.

Cash, please.

HAASE BROS.

116 S. Jefferson St., Peoria, Ill.

IMPORTED CANE STAKES

Check your needs and order now.

SUPPLIES—Continued

SOIL HEATING EQUIPMENT, designed by a grower and engineer, for commercial propagation. Cable, soil thermostat and pilot lamp to heat 20 sq. ft., \$11.40; 40 sq. ft., \$14.25; 60 sq. ft., \$17.10; 80 sq. ft., \$19.95, and 150 sq. ft., \$27.05. F.O.B. Seattle. L. N. ROBERSON CO. 1539 E. 103rd St. Seattle 55, Wash.

RUBBER. Your Rubber requirements are important. Know where to get it when you want it. Belts, rubber bands, boots, coats, gloves, hose, spray bulbs, aprons, budding strips. Get our price sheet and catalog today. BROADWAY RUBBER MFG. CO. Louisville 2, Ky.

SPECIAL SALE
Sphagnum moss, long fibered in standard burlap bales at \$1.55. Milled sphagnum moss for control of damping off in seed flats, etc., at \$1.55 per bag. F.O.B. Floodwood, Minn. COLBY PIONEER PEAT CO., INC. Hanlontown, Ia.

Complete Hot Water Heating System for greenhouse, size 16 x 35 ft. In good shape. Immediate possession, \$160.00. Also greenhouse for above system for \$100.00 in fair shape. Both for \$200.00.

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St. Mary's, N. Va.

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Letterheads, billheads, statements, cards, envelopes, tags, blotters, folders, catalogs, samples. Send copy for estimate. J. GARLAND HILL, Dept. A, Seaford, Del.

SOIL HEATING CABLE by "GRO-QUICK." Heavy duty cable now available, also thermo. Bottom heat can't be beat for rooting cuttings, for forcing. Get free instal. data. GRO-QUICK, 466 W. Huron St., Chicago 16, Ill.

GIBALTAR Frost Covers pay for themselves. Economical, long-lasting, ideal for windbreaks, 6 ft. wide; 50 ft., \$13.75; 100 ft., \$26.00; 150 ft., \$39.00. NEW AMSTERDAM IMPORT, 122 Chambers St., New York 7, N.Y.

Spent HEMLOCK TANBARK for mulching and other nursery uses. Price nominal. EAGLE OTTAWA LEATHER CO. Grand Haven, Mich.

WANTED

What have you to offer in Strawberry Plants, Grapevines, Raspberry Plants, Boysenberry Plants, lining-out stock Evergreens and Shrubs; fall and spring delivery; write us, Box 710. E. W. TOWNSEND & SON NURSERIES Salisbury, Md.

WANTED — Colorado Spruces, blue and green, to be cut for Christmas trees, size 2 to 10 feet, need about 500. State price in ground or delivered. JOHN HOVERMAN & SONS, INC., State Hwy. Rt. 17, Rochelle Park, N. J.

WANTED

Tree cones of Slash, White, Pitch and Sugar Pine; Norway Spruce, Hemlock, etc. Large quantities. Write PEEKSKILL NURSERIES, Shrub Oak, N. Y.

WANTED

Espalier Pear tree, 5 to 6 ft. high, candelabra type; Bartlett preferred. LAWRENCE E. SMITH, 148 S. Woodward, Birmingham, Mich.

EDWIN A. CONGDON and William Kilton Crow have ceased the operation of Boulder Valley Nursery, at Boulder, Colo., which they organized last spring. Mr. Crow is now with the Crow Bros. garage, at Boulder, and Mr. Congdon is with the United States weather bureau, at Lander, Wyo.

H. B. WHARTON has sold his retail nursery at Roanoke, Va., known as Blue Ridge Gardens, to J. R. Richardson, of Roanoke, who will operate it under the same name and policies. Mr. Wharton will retain his original nursery at Elliston, and his mountain nursery at Salem, Va., which he will continue to operate under the name of Blue Ridge Nursery, with W. L. Rakes as manager.

COVER ILLUSTRATION.

Gaultheria Procumbens.

Gaultheria procumbens, wintergreen, is a native broad-leaved evergreen ground cover which finds limited use in landscape areas. The gaultherias are mostly low prostrate or creeping plants, bearing thick dark green leaves alternately placed on the stems. Records show that the gaultheria was named after a Dr. Gaultier, an early physician in Quebec.

Gaultheria procumbens is a low creeping plant, spreading by underground stems, with the leaves or simple branches extending about four to five inches at the most above the ground. The leaves are rounded, varying in size from three-fourths of an inch to a little over an inch in length, are slightly toothed and bright glossy green above.

The small white or pinkish-white flowers are produced mostly in May, but a few continue to appear during the summer months. The flowers are followed by bright red or scarlet fruits, somewhat less than a half inch across and may be found on the plants from August until the following spring.

This little native ground cover is found from Newfoundland to Manitoba, south to Georgia and Michigan. It grows in acid soil in shaded, partially shaded or sometimes sunny exposures. It is perfectly hardy and will do well in cool situations where the soil is favorable. In sunny exposures the leaves take on a bronzy-red color during the late fall.

Our experience with the wintergreen has not been very satisfactory as a ground cover for limited areas in central Ohio. Two factors seem to be responsible for its poor growth in this area. One is that the soil is naturally alkaline or only slightly acid, and it is difficult to maintain a satisfactory reaction for the favorable growth of this plant. The other factor is that it seems to dislike our hot summer periods. Under our conditions it develops very slowly and usually the planting is not effective. The difficulty seems to lie in its inability to establish a dense mass.

Propagation can be accomplished by seeds or by division. Small plants should be grown in flats or pots in peaty well drained soil.

The wintergreen is in much the same category as the partridgeberry, *Mitchella repens*, in its use in landscape planting. It finds limited use as a rock garden subject, for naturalizing in wooded areas and possibly as a general ground cover for limited

areas where the soil and exposure are satisfactory for its growth. It is an interesting little plant, and many persons like to grow it for the wintergreen odor of the crushed foliage.

L. C. C.

PHLOEM NECROSIS CONTROL.

No successful method of treating a tree for phloem necrosis has yet been devised, according to Dr. Leo R. Tehon, botanist and acting chief of the Illinois Natural History Survey. The statement was made in response to requests for information on the disease suspected of killing hundreds of elm trees throughout central and southern Illinois.

One or more of the symptoms of phloem necrosis may occur in elms afflicted with other diseases, Dr. Tehon explained. Occasional reports of elms which have recovered from phloem necrosis have undoubtedly arisen through inaccurate diagnosis.

Leaves drooping and turning yellow and inner bark from the lower trunk and roots having a caramel color and emitting the odor of wintergreen are field symptoms of phloem necrosis, but any of these may be found as symptoms of other diseases. The only infallible test for phloem necrosis known at the present time is the laboratory transfer of the disease from a dying to a healthy tree. This test requires careful technique and several months to complete, according to Dr. Tehon.

"Phloem necrosis is a virus disease, and no one has yet successfully treated a virus disease of plants with chemicals," Dr. Tehon said. "Treatments that have been reported, which include swabbing the trunk of the tree with lye water, inserting sulphur or iron compounds into the trunk and adding unusual or poisonous chemical compounds to the soil near the tree, can have no desirable effects on a tree infected with phloem necrosis, and might possibly endanger the life of a healthy tree."

Other tree diseases respond to treatments similar to those that are unsuccessful with phloem necrosis. The injection of certain iron compounds into tree trunks is a widely recognized and successful method for treating iron deficiency chlorosis, and the use of complete fertilizers of specified formulas has proved beneficial in the treatment of trees having certain fungus diseases.

"The addition of the proper plant fertilizer to the soil may increase the general vigor of a tree and promote its growth," Dr. Tehon said, "but it will have no effect upon whether the

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We are making every effort possible to obtain a supply of these special grafting knives and hope to have them in time. Prices cannot be quoted but you may write us to reserve the quantity you will need.

BUDDING STRIPS—Rubber

• Made of RED RUBBER.

• Near PREWAR Quality.

SAMPLES and PRICES—Upon request.
DO NOT WAIT!! Real Rubber still scarce hence the supply is limited.

RAFFIA

FINEST—West Coast Majunga. Wide leaf.
No. N-45—NATURAL. 3 to 9 lbs., per lb.85c
10 to 24 lbs., per lb.80c
100 to 224 lbs., per lb.75c
Full bales, 225 lbs., per lb.75c
Raffia hanks weigh from 3 to 5 lbs. each.
No. N-49—GREEN DYED—1-lb. pkgs., each.95c
both in stock for immediate shipment.

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"General Electric"

Needed soon, therefore CABLES and THERMOSTATS must be ordered AT ONCE, as the manufacturer requires 60 to 90 days. Rush orders are out of the question.

Set consists of a 60-ft. (400-watt) cable assembly with plug (for hotbeds of 36 sq. ft. or less) and a thermostat assembly with duplex receptacle and 3 ft. of all-rubber cord with plug.
No. N-108—Complete set \$16.00
No. N-109—Extra 60-ft. cable with plug—Each. 4.50
No. N-110—Thermostat assembly separately—Each. 11.50
Descriptive pamphlet sent upon request.



PEAT MOSS

Finest imported horticultural grade.
No. L-165—Full standard bales, each \$4.25
Shipped from our warehouse—Chicago.

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Schupp Specials

BULB PLANTING TOOL— "Hole in One"



The tapered cup removes the soil and makes a perfect planting hole in one operation. A slight twist when pushing the tool into the soil, also when removing it, will leave a clean flat-bottomed hole.

No. I-257—Special Each \$0.95
3 for 2.55
Dozen 8.60

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POT LABELS. Wooden— $\frac{1}{2}$ in. wide. Prices, per carton
Size per Ctn. **PLAIN** **PAINTED**
4-in. 3 $\frac{1}{2}$ No. M-110—\$2.25 No. M-116—\$2.65
6-in. 5 $\frac{1}{2}$ No. M-112—2.80 No. M-118—3.35
10-in. 8 No. M-114—2.70 No. M-120—3.25
4 and 6-in.—1000 per carton. 10-in.—500 per carton.

GARDEN LABELS—8 and 10-in.— $\frac{1}{2}$ in. wide, 12-in.—1 $\frac{1}{4}$ ins. wide. Prices, per carton
Size per Ctn. **PLAIN** **PAINTED**
8-in. 2 $\frac{1}{2}$ No. M-122—\$1.80 No. M-125—\$2.10
10-in. 4 No. M-123—2.10 No. M-126—2.35
12-in. 2 $\frac{1}{2}$ No. M-124—1.10 No. M-127—1.35
8 and 10-in.—250 per carton. 12-in.—100 per carton.

TREE LABELS— $\frac{3}{4}$ in. long, copper wired.
No. M-128—PLAIN—(Wt. 4 lbs.) carton of 1000. \$2.75
No. M-129—PAINTED—(Wt. 4 lbs.) carton of 1000. 3.35
4 $\frac{1}{2}$ " All labels sold in full cartons only.

PENCILS—Weather-proof



No. M-131—Per dozen.90c Per gross. \$9.00

tree becomes infected with phloem necrosis, and it has no tendency to preserve the life of a tree infected with this disease."

MEALY BUG AND TAXUS.

The increasing infestations of taxus mealy bug may influence the nurseryman's choice of varieties and his method of shearing taxus, Frank Turner, of the Berryhill Nurseries, Springfield, O., reminded his hearers when he spoke at the summer meeting of the Indiana Association of Nurserymen. The mealy bugs most heavily infest the denser types of taxus and the denser ends of branches where shearing has produced a more compact growth. It is more difficult to get adequate spray penetration and coverage of the insects with the spray material in a dense foliage. If this pest cannot be more easily controlled, it may cause nurserymen to ponder what varieties they wish to grow.

EVERGREEN ACRES, McDonough, Del., was organized as a new nursery this past March. It is owned and operated by H. F. Morris, Barnesboro, N. J., and W. A. Weller-ton, who was recently discharged from the armed forces.

DIG 2 HOLES A MINUTE

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A ROPER

Planting and transplanting time is cut way down when you use a Roper high-speed hole digger. Installed easily by one man in a few minutes. Safe, fast and efficient in all soil types. Adjustable so that holes may be dug straight down even on rolling land. Priced reasonably direct from manufacturer.



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18-in. Diam.
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**VEGETABLE PLANT
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Onion, Cabbage, Tomato, Pepper, Sweet Potato.
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Beginning in the Nursery Business

By John J. Pinney

Complete series of articles reprinted from issues of The American Nurseryman from September 15, 1945, to April 1, 1946.

IN BOOKLET FORM

Order at once, particularly if you wish quantity lots.

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5000—For Nova Clog S-100 Plier.....\$1.25
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5000—For Standard Machines......75
Additional Discounts on Quantities.
All Products Guaranteed

GENERAL STAPLE CORP., 238-4th Ave., N. Y. 3, N. Y.

CATALOGS RECEIVED.

Mount Arbor Nurseries, Shenandoah, Ia.—Wholesale price list of general nursery stock, including fruit trees, small fruits, ornamental shrubs, shade trees, vines, evergreens, roses, peonies, perennials and spring bulbs, 64 pages and cover, 6x9 inches.

Bryant's Nurseries, Princeton, Ill.—Wholesale price list of fruits, climbing vines, deciduous trees and shrubs, evergreens, peonies and French lilacs, 32 pages, 6x9 inches.

Jewell Nurseries, Inc., Lake City, Minn.—Wholesale price list of fruit trees, small fruits and garden plants, shade and ornamental trees, ornamental shrubs, evergreens, vines, roses and hardy perennials, 23 pages with cover, 5½x8½ inches.

Tuttle Bros. Nurseries, Pasadena, Cal.—Wholesale price list of evergreen and deciduous shrubs and trees, vines, ferns, perennials and fruit and nut trees, 23 pages and cover, 5x7¾ inches.

Charles Fiore Nurseries, Prairie View, Ill.—Wholesale price list of deciduous trees and shrubs, evergreens, vines, fruit trees and perennials, 32 pages and cover, 3¾x9½ inches.

Sneed Nursery Co., Oklahoma City, Okla.—Wholesale price list of ornamental shade trees, flowering shrubs and evergreens, 17 pages, 4x9 inches.

W. T. Smith Corporation Nurseries, Geneva, N. Y.—Wholesale price list of fruit trees, ornamental trees and shrubs and evergreens, 12 pages, 4x9 inches.

Forest Nursery Co., McMinnville, Tenn.—Wholesale price lists of fruit trees and of deciduous flowering shrubs, forest and shade trees, vines, creepers and fruits, 5 pages together, folded, 8½x11 inches.

Pitzonka's Pansy Farm, Bristol, Pa.—Wholesale price list of pansy plants and seeds in 4 pages, and 8-page retail price list of same, both illustrated, 8x11 inches.

Henry Kohankie & Son, Painesville, O.—Price list of coniferous and broad-leaved evergreens, deciduous shade and small trees, deciduous shrubs and vines, 216 pages and cover, 4¾x7¾ inches.

Overlook Nurseries, Mobile, Ala.—Descriptive retail price list of rare and standard camellias, azaleas, broad-leaved evergreens and deciduous trees and shrubs, illustrated, 58 pages and cover, 3¾x6¾ inches.

Columbia & Okanogan Nursery Co., Wenatchee, Wash.—Retail price list of fruit and nut trees, small fruits, evergreens, shade and ornamental trees, flowering shrubs, 24 pages and cover, 4x9½ inches.

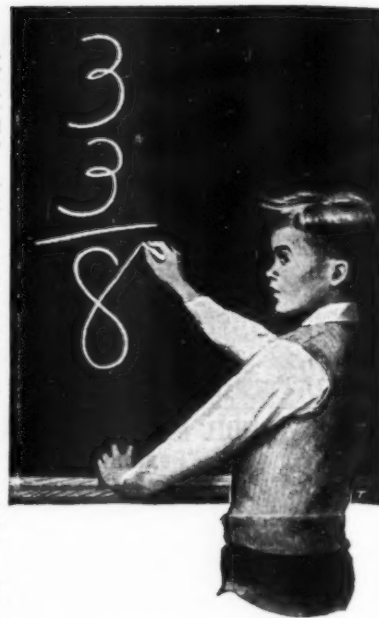
Upton Nursery Co., Detroit, Mich.—Lilac catalog, beautifully illustrated with natural color photographs, no prices listed, 24 pages, 5¾x8 inches.

Armstrong Nurseries, Ontario, Cal.—Retail catalog of roses and bulbs, fully illustrated in color, 16 pages, 7½x10¾ inches.

Sunny Border, Inc., Kensington, Conn.—Retail price list of perennials and rock plants, illustrated, 16 pages, 7½x10 inches.

C. F. Wassenburg, Van Wert Co.—4-page retail price list of irises, poppies and lilies, mimeographed, 8½x13¾ inches.

ARCADY GARDENS NURSERY is the successor to Glascock's Nursery, Medford, Ore. L. R. Thomas and Thelma B. Thomas, the new owners, have a greenhouse and lath house at their country residence and will use the original Glascock's Nursery location for their sales yard.



THIS KIND OF ARITHMETIC may put Johnny through college

Here's how it works out:

\$3 put into U. S. Savings Bonds today will bring back \$4 in 10 years.

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DISEASES AND INSECTS OF HERBACEOUS PLANTS.

[Concluded from page 15.]

which is not generally understood. This story tells about the rust and how to control it in gardens and in the nursery, so that it may not spread from nursery to garden on purchased plants. One may look for rust on hollyhocks from July to October; it may make its appearance in the middle of June. The first evidence of rust is lack of plant vigor. Poor foliage, dropping of bottom leaves and a general stunted condition of the plants are later symptoms.

The symptoms of the trouble are the occurrence of small red-brown pustules, especially on the undersides of the leaves, more particularly on the lower leaves, which may die and drop off (see figure 9). In bad cases the whole plant gradually becomes defoliated as the disease spreads and works upward, destroying nearly all of the foliage. Rust on hollyhocks is easily recognized by its yellow to brown spore spots, each of which is raised above the surface of the leaf or stem as a small wartlike protuberance. These fruit spots are at first small and circular in outline, but they may become confluent over considerable areas. The illustration (figure 10) shows the symptoms of the rust on leaves and displays the abundance of fruit spots, which are the outward manifestation of a fungus which is working within the tissues of the leaf and destroying it. Rust spots contain many spores, which spread the trouble to healthy leaves.

Rust winters over on the old leaves, sometimes on the new basal leaves at the crown of the plant. Winter spores, which are able to withstand severe weather and other adverse conditions and are able to multiply in the spring, starting infection in the development of rust in mid-season on the new plants, are formed. Infection can occur only by the transmission of the spores, which may take place in late fall on the new basal leaves or in early spring on the newly formed leaves. Rain spatters the spores to the lower leaves.

The first step in the control of this rust disease is sanitation. As soon as the leaves appear rusted in midsummer, they should be picked off and buried or burned, and later all dead leaves and stalks should be gathered and burned. One should not wait until fall to begin the sanitation work. In the spring and early part of summer, suspicious-looking leaves should be picked and destroyed.

Spraying the plants in May and

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June by wetting the under and upper sides of leaves and stems with Bordeaux mixture, or preferably dusting with fine dusting sulphur (not merely the dry sulphur), will tend to control the disease. Repeated applications should be made, with emphasis on the first sprays (or dust) in late May and early June. As many as three weekly applications should be made. This fungicidal work, together with sanitation, should give nearly complete control after the first year's treatment.

In the control of this rust, it is well to remember that almost all members of the mallow family, such as marsh mallow, the common mallow, or cheeses; false mallow (generally classed as weeds); the Indian mallow, or abutilon, and the rose mallow, or hibiscus, are all subject to this trouble and spread it.

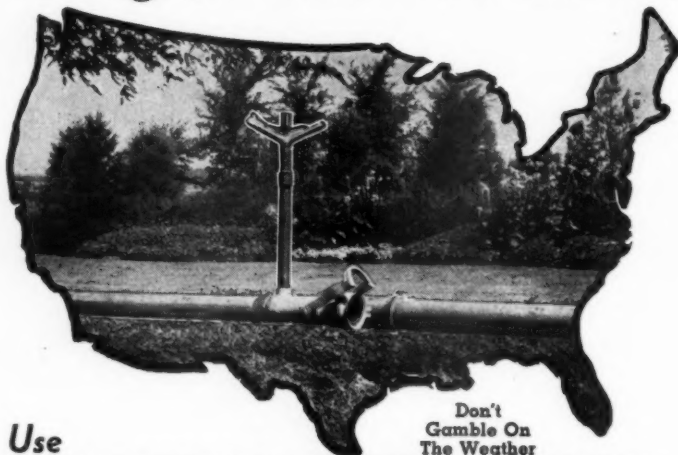
In general, the most satisfactory way to keep hollyhocks from becoming badly infested is to provide the proper conditions for their growth by giving them a fairly rich soil which is deeply dug and well drained and thoroughly watered when required. Then, if the plants do become infested, the attack will not become heavy, and remedial or preventive measures, as suggested above, will be highly effective. Rust on carnations and on snapdragons can be controlled by methods similar to those used for rust on hollyhocks.

Grubs and Red Spiders.

Several different kinds of grubs, but much alike in the kind of damage done and in means of control, are more or less prevalent in nurseries, especially where herbaceous plants are grown. The white grub, shown in figures 3, 4 and 6; the worm stage of the June bug, and the curled grub of the Japanese beetle are important. Most grubs are curved in shape and white in color, have conspicuous segments and black heads, and are fat and thickset. They are ravenous creatures, destroying the roots of many plants, so that affected specimens wilt, topple over and die.

The life history of grubs is much the same, except for duration of the worm stage. The white grub of strawberry plants and other species lives as a worm for two seasons in the soil, while the one of the Japanese beetle lives only part of a year as a grub. Manure piles and some composts are breeding and hibernating places for some grubs, and products of this type need inspecting before being used. Grubs are most troublesome in new land or turned-over sod. Trials in Vermont and New York show that arsenate of lead, a teaspoonful to each

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gallon of water, poured preferably into bar holes near infested plants will kill the creatures in a short time, as will dry arsenate raked into the soil and well distributed where grubs are working. The dry arsenate can be diluted with twenty parts of fine dry sand and applied where plants are to be set, or put into the hole for newly set plants. The worms ingest the poison with surrounding soil and that attached to roots. DDT will also kill grubs if worked into the soil. One should use five pounds of the ten per cent product to 1,000 square feet of land. Dowfume (W10), ethylene dibromide, a new soil fumigant that can be injected into smooth fine soil to kill seed corn maggots, grubs and wireworms, will soon be available for general use and will be a boon to growers. Planting is done one week after fumigating. In tests, ninety-five per cent control has been secured. It is thus seen that the nurseryman has the choice of several remedies and can select at will according to convenience.

The minute creatures known as red spiders affect many herbaceous plants as well as some woody ones. Phlox illustrates the first group and raspberry plants the second class. These spiders seem to be small red dots, usually enmeshed in fine webby growth, which is their nest. They assemble on the undersides of leaves, rarely on top, and occur in large numbers. They are so small that they hardly can be seen without a magnifying glass, but their bright red color distinguishes them. They eat the skin of leaves and some of the inside tissue and do much damage in the aggregate. They are not true insects, as they have eight rather than six legs and are a kind of spider.

The red spiders eat ravenously on leaves of phlox, raspberries, carnations and many other plants. They are rarely suspected until much harm has been done. Leaves of affected plants look pale, unthrifty or under-size and are of little value to the plant because of injury.

The destruction of affected parts when generally infested, coupled with spraying, will suppress and control red spiders. Wetting down the plants with a forceful stream of water will wash off many, and they perish before they can return to the plant. Dusting with fine sulphur powder or with rotenone of five per cent strength and ready to apply is effective. All applications should be made toward the under surface of the leaves, and it is a hard task to get this thoroughly done. Black Leaf 155, rather than Black Leaf 40, is also effective.



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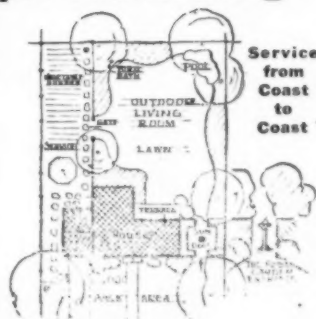
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CALIFORNIA CONVENTION.

[Continued from page 8.]

Stewart Henson. His figures showed a good balance on hand. Highlight of the morning was a radio program conducted by Rolly Langley. Louise Weick, Oliver Kehrlein and Albert Wilson, garden editors for the San Francisco press and radio. A transcription was cut of the broadcast and copies will be available for \$10, from Jack Hawkins, San Francisco. Local radio stations throughout the state may use copies for broadcast.

An audience-participation show, the program featured an ask-it basket conducted by Oliver Kehrlein. Answering the questions drawn from the basket were T. A. Sand, Delano; Lloyd Hodges, Long Beach; Clarence Perkins, Pleasanton; George Roeding, Niles; Harry Marks, Los Angeles; Paul Moulder, Glendale; Jack McDonnell and Clif Nelson, Oakland; High Evans, Los Angeles, and J. Awdry Armstrong, Ontario. Jockeys for the wooden horses in a hilarious steeplechase, in which Rolly Langley called out questions and the first to answer advanced on his horse, were J. Awdry Armstrong, Harry Marks, Ray Hartman, San Jose, and Prof. Harry Shepherd, Berkeley. The winner was Mr. Armstrong.

Needs of Landscape Architects.

The speaker of the morning, Prof. Harry Shepherd, of the University of California at Berkeley, who spoke on "The Future Needs of the Landscape Architect," was introduced by his former pupil, Charles Burr, of McDonnell Nursery, Oakland. He presented the results obtained from a questionnaire sent to the Association of Landscape Architects of the San Francisco region. The members of that group were of the opinion that an increase in prices of nursery stock would not make the public less likely to buy, but that the increase should not be excessive; that nurseries should give customers advice on plant care because nursery stock is too scarce and dear today to be trifled with, but that no remedies for curing failing plants should be prescribed unless the plant is seen growing, and that they should not guarantee stock. The group felt that nurseries should not act as landscape contractors. Its members should be willing to give their services free to owners of small homes.

Asked to name ten plants which they thought nurseries should discontinue carrying, the San Francisco landscape architects listed *Aucuba japonica variegata*, *Buddleia davidi*, *Cotoneaster microphylla*, *Coprosma baueri variegata*, *Cupressus sempervirens*, *Dracaena fragrans*, *Ficus religiosa*, *Ginkgo biloba*, *Juniperus communis*, and *Pinus strobus*.

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virens fastigiata, Euonymus variegata, Escallonia montevidensis, Ligustrum ovalifolium golden, Phoenix canariensis and Veronica imperialis.

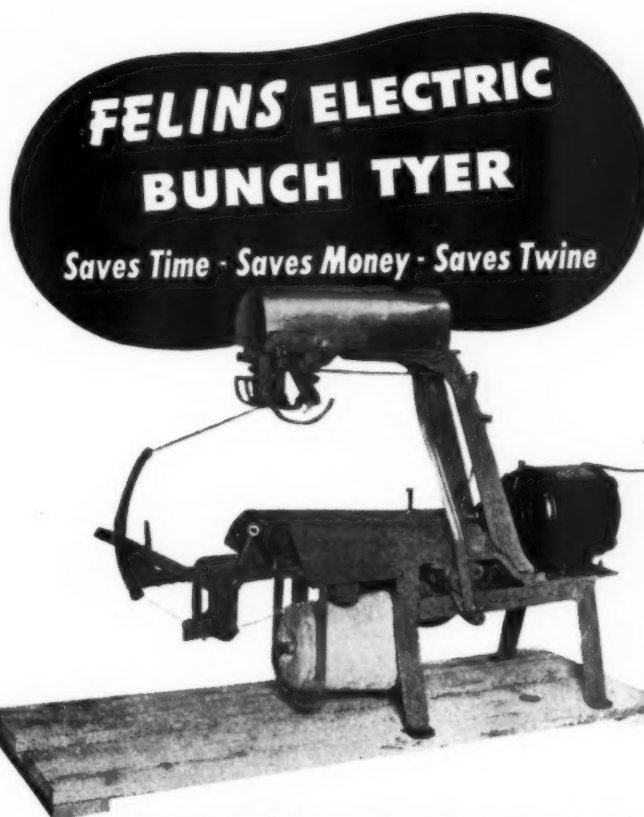
Plants which nurseries do not generally carry now and which the landscape men thought should be in stock are: Abelia goucheri, Abelia triflora, Abies numidica, Acacia verticillata, Acer buergerianum, Acer davidi, Acer oblongum, Acer japonicum macrophyllum, Acer campestre, Actinidia chinensis, Akebia quinata, Arctostaphylos tomentosa, Arctostaphylos uva-ursi, Asarum caudatum, Bauhinia purpurea, Bouvardia pink, Ceanothus gloriosus, Cissus striata, Coleonema pulchrum, Cotoneaster adpressa, Duranta repens, Eucalyptus caesia, Feijoa sellowiana, Franklinia alatamaha, Gautheria shallon, Grevillea thelemanniana and G. rosmarinifolia.

Others which the landscape architects thought nurserymen should stock include: Griselinia lucida, Hy-menosporum flavum, Ilex crenata convexa, Juniperus horizontalis, Lapageria rosea, Leptospermum leavigatum reevesi, Ligustrum henryi, Lonicera fragrantissima, Magnolia grandiflora exoniensis, Maytenus boaria, Ochna multiflora, Pachysandra terminalis, Phlomis fruticosa, Populus alba bolleana, Prunus campanulata, Quillaja saponaria, Ribes viburnifolium, Stranvaesia davidiana undulata, Styax californica, S. japonica, Ternstroemia gymnanthera, Vaccinium ovatum, Viburnum davidi and Zeltkova serrata.

As an interesting side light to his talk, Professor Shepherd showed some old California nursery catalogs from the historical collection of Prof. Harry Butterfield, of the University of California at Berkeley. Among the catalogs were those of Charles Navlet, San Jose, 1894; James Hutchins, 1874; John Roch, San Jose, 1888, and Commercial Nurseries, San Francisco, 1854. A catalog dated 1854 showed only 268 varieties of roses, compared to the hundreds now listed, but some catalogs showed plant varieties which are considered rather new today. Some of the catalogs carried extensive hints on planting.

White Speaks for A. A. N.

After the stag luncheon in the Blue and Gold room, at which Jim Muir, a one-man circus, entertained, the first part of the concluding session was given over to "An Hour with the American Association of Nurserymen." Clyde Stocking, president of the California chapter, presided. John Awdry Armstrong, vice-president of the A. A. N., told of the

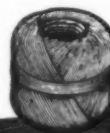


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Miami convention in July and of plans for the coming conventions, with the 1949 meeting scheduled for San Francisco.

A. A. N. Executive Secretary Richard P. White told of the work accomplished by the association, not only for its members, but for the entire nursery industry. Through the national association, the industry was declared essential to the war effort, tin was allocated for containers for nurserymen, rubber was secured for rubber budding strips, the industry was not put under OPA control, interstate shipment problems have been eased and it is expected that Senate bill 1990 on foreign plant quarantine will be reintroduced in the next session of Congress and passed.

Mr. White discussed "Current Problems of Our Industry" which appeared in the October 1 issue of the American Nurseryman. He cautioned the nurserymen against overproduction, advising them to produce only as they are capable of selling, and he predicted another wave of strikes after the fall elections and a big labor organization program by the unions. He supported the California secretary, Jack Lincke, in asking the nurserymen to resist these labor organization attempts and cited the Stark case of 1941, in which the National Labor Relations Board ruled that as long as there is an indeterminate number of employees who are agricultural employees, the National Labor Relations Board would not interfere on behalf of the union. Mr. White also discussed the housing program in relation to the nursery industry, the stone fruit virus problem, the quarantine situation and the A. A. N. public relations program.

Banker on Business Planning.

Final speaker of the program was E. G. McGowan, assistant vice-president of the Bank of America, San Francisco, and director of the business planning institute of the state of California, who spoke on "Business Planning." In its efforts to aid the California program to develop a great western industrial empire and to draw industry to California, the Bank of America had prepared a booklet, "California Trends," which had been sent to manufacturing company executives throughout the country. Enlarged reproductions of charts in this booklet were used by Mr. McGowan in illustrating his talk. Reasons shown for doing business in California were that the state has an area larger than that of the ten eastern states which have always been the focal point of industry in

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Trees and Shrubs for Landscape Effects, by Marian Cruger Coffin. Chiefly concerned with the materials for landscape planting, with many fine pictures. Written by a landscape architect. 168 p. (1940).....\$3.00

Landscaping the Home Grounds, by L. W. Ramsey. Elementary design and planting. Pen sketches, charts and text show the reader how to beautify his home. 169 p., 76 half-tones and 99 sketches. (1930).....\$2.00

Nursery Sales and Management, by Nelson Coon. Buying, estimating, records, salesmanship, office routine, etc. 240 p. (1931).....\$1.50

Maintenance of Shade and Ornamental Trees and Shrubs, by P. P. Pirone. Up-to-date, original and comprehensive—on pruning, surgery, pest control and other care. 420 p. (1941) \$5.00

Insect Enemies of Shade Trees, by Glenn W. Herrick. 350 photographs and drawings of insects and their work. 400 p. (1935).....\$4.50

Nursery Manual, by L. H. Bailey. Describes methods of propagation and lists plants with practice for each. 470 p., revised ed. (1920) \$3.50

Camellias, by G. G. Gerbing. By 108 color plates aids identification of varieties. Text on blooming and culture. 280 p. (1943).....\$15.00

Propagation of Plants, by M. G. Kains and L. M. McQuesten. Reference book for propagators in greenhouse and nursery. 639 p. (1942) \$3.50

Garden Design, by Marjorie Sewell Cautley. Discusses principles of design as applied to composition, color and decorative elements. Classification of foliage plants by color and texture. 312 p. (1935).....\$5.00

Pronouncing Dictionary of Plant Names. Contains 3,000 plant names and botanical terms, with pronunciation and definitions.....25c

Garden Planning and Building, by Stuart Orloff and Henry B. Raymore. Contains detailed directions for the homeowner. Contents: Basic landscape design; grading and lawn making; the circulatory system; designing the flower garden; walls, steps and fences; garden houses; water features; woodland and wild gardens; rock gardening; furnishing and lighting the garden; playground and game areas; soil fertility. 282 p.\$2.75

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the United States; that the population shift has steadily been to the west; that the gross income of Californians was \$12,970,000,000 in 1943, 132 per cent higher than in 1929, while the average increase for that period over the entire country was less than fifteen per cent, and that per capita buying power is greater than in any other state. In 1929, \$930 was the average income per person in the state, according to government census records, while the average in the country was \$690. Today Californians average \$1,414 per year, while the nation-wide figure is \$1,010. With the greatest diversity of industry and agriculture of any state, California did eight and five-tenths per cent of the nation's retail business in 1943.

In the evening the president's banquet was held in the ballroom, with Arthur Navlet as toastmaster. A gala floor show and dancing provided entertainment.

A. A. N. Chapter Breakfast.

Twenty-nine members of the California chapter of the A. A. N. met for a breakfast meeting, September 25, at the Hotel Claremont, Berkeley. Chapter President Clyde Stocking, of San Jose, presided. John Awdry Armstrong, of Armstrong

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Nursery, Ontario, Cal., vice-president of the A. A. N., and R. P. White, executive secretary of the association, spoke on the value of A. A. N. membership.

Paul Moulder, of Moulder Bros., Glendale, retiring president of the state association, was elected chapter president, and W. S. Clark, nursery manager of Germain Seed & Plant Co., Los Angeles, was elected secretary. W. S. Clark and Leon de Staute were elected delegates for 2-year terms. Holdover delegates to serve for one more year are Ray Hartman, Roy Wilcox, Paul Moulder, Clyde Stocking and Bert Kallman. Elected alternates were George Sorenson, Tom Tomlinson, Frank James and Lyman Merrick.

Various Notes.

Out-of-state guests included Mr. and Mrs. Paul Doty, Doty & Doerner, Inc., Portland, Ore., and their son Ken, who had just spent a week fishing in the Rogue river near Grants Pass, Ore.; Bob Beam, May Nursery Co., Yakima, Wash.; Avery H. Steinmetz, Portland Wholesale Nursery Co., Portland, Ore.; Mrs. Richard P. White, Washington, D. C., making her first visit to the west coast, and Joan L. Kilner, of the American Nurseryman, Chicago, Ill., daughter of the editor.

Harry Rosedale, Rosedale's Monrovia Nurseries, Monrovia, was visiting in Denmark and missed the convention.

W. B. Clarke, 71 years old, had just completed his twentieth consecutive pack trip to the Sierra mountains. Charles Armstrong, the association's new president, has been a member of the party for the past two years.

A special trip to San Francisco for shopping and sight-seeing was arranged for the ladies on Wednesday, with luncheon in the Persian room of the Sir Francis Drake hotel, where Rolly Langeley regularly broadcasts "Party Time." The nurserymen's wives were featured on the program.

GEORGE F. VERHALEN went to Milwaukee, Wis., for the funeral of an uncle at the end of last month. When he stopped at Chicago October 1, he made the Rotary luncheon, before returning to Scottsville, Tex.

THE Columbia Basin Nursery Co. was recently organized by L. C. Havstad, Spokane, Wash., and will be located on the Havstad ranch, at Colonial Acres. Ivy L. Bowman and O. C. Gillum, both veterans, and Reggie Denny, Pasco, Wash., florist, will assist in the operation of the new concern.

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(STANDARD HEAVY)

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Height	5½ ins.	6½ ins.	9½ ins.	9 ins.
Diam. Top	5 ins.	6 ins.	7 ins.	8 ins.
Bottom Diam.	4½ ins.	5½ ins.	6½ ins.	7½ ins.
Corresponding Clay Pot	6-in.	7-in.	8-in.	9-in.
Approx. Weight Per 100	35 lbs.	52 lbs.	78 lbs.	88 lbs.
Per 100	\$ 2.75	\$ 4.00	\$ 4.50	\$ 5.00
Per 1000	\$25.00	\$37.50	\$42.50	\$47.50

No. 0 for perennials and for greenhouse use;

No. 1 for perennials and mums;

No. 2 for roses and shrubs;

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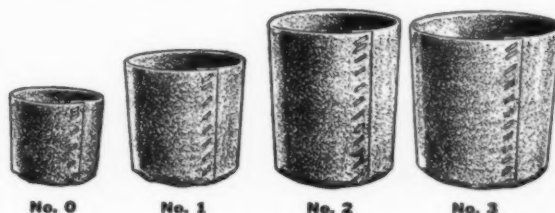
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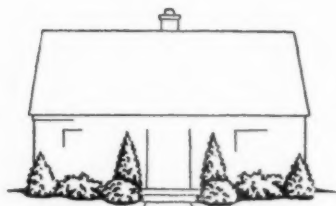
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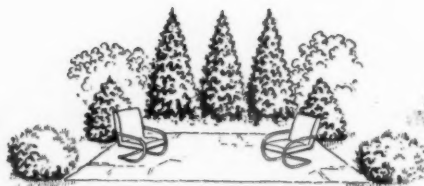
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HILLSPIRE JUNIPER 3 to 6 ft.

UPRIGHT JAPANESE YEW 1½ to 5 ft.

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